2010

Three Essays in Corporate Governance

Vishaal Rabindranauth Anand Baulkaran
Wilfrid Laurier University

Your file Votre référence
ISBN: 978-0-494-75409-2
Our file Notre référence
ISBN: 978-0-494-75409-2

THREE ESSAYS IN CORPORATE GOVERNANCE

by

Vishaal Rabindranauth Anand Baulkaran

BBA, University of New Brunswick, 2004

MBA, University of New Brunswick, 2006

DISSERTATION

Submitted to the School of Business and Economics

in partial fulfillment of the requirements for

Doctor of Philosophy in Management

Wilfrid Laurier University

2010

ABSTRACT

This dissertation comprises three related but different essays on corporate governance issues. The essays are preceded by an overview of the major areas of corporate governance research. The first essay investigates whether the valuation discount of dual class firms reported in the literature can be explained by three channels through which private benefits can be extracted -excess compensation, excess cash and excess capital expenditure. With a propensity score matched sample of S&P 1500 dual class and single class companies, I provide evidence that excess compensation and excess cash holdings of dual class companies lead to a larger discount that investors apply to the value of dual versus single class companies. However, capital expenditure is not statistically significant in explaining the dual class discount.

The second essay examines the impact of concentrated control under dual and single class share structure on dividend policy. Three potential dividend policy hypotheses – extraction of private benefits, family legacy and managerial reputation – are proposed and tested. The results indicate that in the U.S. dual class firms pay less dividends and cash dividend and total distribution decrease as the divergence of voting and cash flow rights widens. This is consistent with the extraction of private benefits and the family legacy hypotheses. However, using excess CEO compensation to disentangle these two hypotheses, the payment of lower dividends in dual class firms is consistent with the extraction of private benefits hypothesis.

The third essay investigates the impact of managerial and board entrenchment on dual class discount. Dual class ownership structure is arguably the most effective anti-takeover mechanism as it allows controlling shareholders to maintain concentrated voting

positions even if additional equity needs to be issued. Thus, management is insulated from hostile takeover and is able to become entrenched. Investors, knowing that dual class structure can result in entrenchment, will discount the value of dual class firms. I provide evidence that the larger the degree of entrenchment the larger the dual class discount. The results also show that anti-takeover defenses in dual class firms, such as classified boards, serve to entrench managers.

Keywords: Dual Class Discount, Executive Compensation, Cash Holdings, Family Ownership and Control, Ownership Structure, Dividend Policy, Agency Theory, Private Benefits of Control, and Managerial Entrenchment

ACKNOWLEDGMENTS

I would like to express my sincere gratitude to my dissertation committee chair, Professor Ben Amoako-Adu. Without his insightful feedback, guidance and encouragement this dissertation would not have been possible. In addition, I am indebted to my dissertation committee members, Professor Brian F. Smith and Professor Phelim Boyle for their guidance, insightful comments and support over the past two research years. Also, I am grateful to the Laurier Finance faculty and my fellow PhD students for their feedback and support.

I am grateful to Professor Randall Wigle for acting as the internal/external at my dissertation defence. I am thankful to Professor Stephen Foerster, who generously accepted the role of external examiner, for his insightful recommendations and sincere encouragement.

I would like to thank my parents Dwarka and Devikarai Baulkaran for their support throughout this process. Finally, I would like to acknowledge the support and help of my fiancé Jessica Johnson throughout my graduate studies.

VITA

September 16, 1979 .....Born – New Amsterdam, Berbice, Guyana

2004.....Bachelor of Business Administration, University of New Brunswick, Canada

2006.....Master of Business Administration, University of New Brunswick, Canada

FIELDS OF STUDY

Major Field: Business Administration
Concentration: Finance

TABLE OF CONTENTS

CHAPTER 3

CHAPTER 4

CHAPTER 5

LIST OF TABLES

CHAPTER 2

CHAPTER 3

CHAPTER 4

LIST OF FIGURES

CHAPTER 2

Chapter 1

An Overview of Corporate Governance

1.0.0 Conceptual Framework of Corporate Governance

In recognition of the key role played by owners, directors and senior officers in the financial decisions of a company, corporate governance has grown to be an important subject area within finance. It is a field of research which is multifaceted as it involves issues related to the board of directors, executive compensation, ownership structures, market for corporate control, shareholder activism and regulations.

There is no precise definition for corporate governance. The definition depends on the conceptual framework within which it is being examined. Shleifer and Vishny (1997) define corporate governance as the ways in which suppliers of capital to corporations assure themselves of getting a return on their investments. [1] The Ontario Teachers' Pension Plan define corporate governance is defined as a system by which companies are directed, controlled and evaluated. Hence, the primary responsibility for corporate governance lies mainly with the board of directors. In most definitions of corporate governance several common concepts tend to resonate, such as accountability, direction, control and evaluation.

Solomon and Solomon (2004) distinguish between the narrow definition of corporate governance as corporate accountability to shareholders and a broader definition as a system of checks and balances, both internal and external, which ensure that companies

[1] Denis (2001) defines corporate governance as the set of institutional and market mechanisms that induce self-interested managers to maximize the value of the residual cash flows of the firm on behalf of its shareholders.

discharge their accountability to shareholders and act in a socially responsible way in all areas of their business activities. Thus, the breadth of the definition of corporate governance relates to whether the company should operate for the sole interest of the shareholders or whether it should safeguard the interest of those that are impacted by it (employees, customers, the public, government and other stakeholders). From the perspective of nearly all finance literature and from that of institutional investors, the narrow definition is preferred. It is the narrow one that will be applied to this dissertation.

Although the term was not explicitly used before the 1960s, corporate governance issues have been around since the influential writings of Adam Smith. In the 1930s, Berle and Means (1932) and Dodd (1932), shed light on corporate governance by looking at the separation of ownership from control. The rise of professional managers and modern corporations (Chandler, 1962 and 1977) further exacerbate the separation of ownership and control.[2] Coase (1937) argues that the presence of transaction costs leads to incomplete contracting between managers and shareholders.[3] Since all possible eventualities cannot be contracted, managers must use their discretion when dealing with future eventualities. In this situation, managers can act in the interest of shareholders or in their own interest. Hence corporate governance mechanisms, such as board of directors, are required to ensure that managers act in the interest of shareholders.

Agency problems arise from the separation of ownership and control as well as the limited liability of the modern corporation. As firms grow, the need for capital as well as professional managers to run these large corporations results in further separation of

[2] For further discussion on the rise of professional manager as a dominant force in Modern Corporation, see the writings of Chandler (1962, 1977).

[3] Transaction costs include: i) costs of thinking about all eventualities that can occur during contracting relationships, ii) negotiating costs and iii) costs of writing contracts which are enforceable by the courts (Hart, 1995).

ownership and control and the accompanying agency costs. Managers (agents) do not always act in the best interest of the shareholders (principal). Agency costs arise because shareholders attempt to monitor managers, use incentives and contracts to align managers' and shareholders' interests (Solomon and Solomon, 2004). The potential conflicts of interest between managers and shareholders can arise from managers' resistance to being replaced by a more competent successor, difference in risk borne by shareholders and managers and diversion of "free cash flow" for the benefit of managers.

Managers and shareholders may face different degrees of risk. This is particularly true when companies are not closely controlled. In such companies, shareholders normally have a diversified portfolio of stocks. In comparison, managers' face undiversified risk. Managers have large human capital tied up in the firm, and often a significant equity interest. Hence, managers are expected to be more conservative in their decision making since they have a great deal more at stake. Managers' conservative decision making may conflict with shareholders' goal of profit maximization. Therefore, managers may be unwilling to take on a project that is worthwhile from the shareholders' point of view because they have a lot to lose if the project fails (Denis, 2001). On the other hand, incentive based compensation such as stock options has the potential to induce unnecessary risk-taking behavior by managers. With stock options, managers can benefit greatly from high risk projects that succeed while facing limited downside risk if the project fails. This is particularly true if executives have limited equity interest in the firm. Hence, incentive compensation schemes can serve to increase the alignment of interests between managers and shareholders or increase risk-taking by executives.

Jensen (1986) was the first to identify the agency costs of "free cash flow". He argued that managers could use "free cash flow" to pursue value-destroying projects rather than return the free cash flow to shareholders. Managers may mistakenly believe that the project is worthwhile or may wish to maximize assets under management (Denis, 2001). As assets under management increase, managers' gain power and prestige as well as increase compensation which is usually a function of the firm's size. Managers may also use free cash flow to undertake "pet" projects which are often value-destroying. Hence, by pursuing these projects, managers waste "free cash flow" rather than distributing it to shareholders.

There are several potential solutions to agency problems which result from separation of ownership and control. These include: bonding by the managers, monitoring of the managers and incentives which align the interests of managers with those of shareholders.[4] The effectiveness of these potential solutions is greatly debated in the corporate governance literature. In particular, monitoring and alignment of interests occurs through various corporate governance mechanisms that may help to alleviate agency problems. For example, legal and regulatory mechanisms as well as incentive based compensation can align the interests of managers and shareholders. The debate is ongoing and it is my hope that this dissertation will help to understand the critical role that ownership and voting control play in determining the value of the firm.

[4] Jensen and Meckling (1976) provide a detailed discussion on how owner-managers can effectively bond themselves in order to reduce agency costs.

2.0 Corporate Governance Mechanisms

2.1.0 Laws and Regulations

Legal and regulatory corporate governance mechanisms are the most basic external mechanisms that exist. Regulations and laws have received increasing attention from the press, researchers and practitioners. One such regulation in the U.S. involved disclosures of top level executives' compensation by the Securities and Exchange Commission. This has led to a growing literature that treats executive compensation as both a source and a potential solution to agency problems. Corporate failures in the U.S. such as Enron and WorldCom and the financial crisis in several countries around the world have led to an increasing call for legal and regulatory reforms and oversight. Regulations have been introduced in many countries to protect minority shareholders. This is especially true in countries where concentrated control is the dominant form of corporation. Shleifer and Vishny (1997) argue that in many large corporations around the world the fundamental agency problem is not the traditional agency problem (between managers and shareholders) but it is the conflict between outside investors and controlling shareholders. Hence, how best to protect minority shareholders is an important governance issue.

2.2.0 Hostile Takeovers

Hostile takeovers can be an effective external disciplinary mechanism when managers are inefficient at running the corporation. The bidding firm or corporate raider often takes control of the target firm and replaces "inefficient" managers with their own slate of new executives. In a hostile takeover, the bidder thinks that they can do a better job

than the current management and hence, improve efficiency and increase firm value. However, researchers are questioning the effectiveness of hostile takeovers as a corporate governance mechanism due to the sharp decline in takeover activities after 1989. The decline in hostile takeovers in the U.S. is due to managers lobbying for protection from the market for control and the demise of the junk bond market (Becht et al., 2003). Also, studies have shown that the overall gains (target and bidder) are not different from zero (Becht et al., 2003). This finding is contrary to the popular notion that hostile takeovers correct managerial inefficiency and enhance value. Often the target shareholders gain at the expense of the bidder's shareholders. Therefore, hostile takeovers can be ineffective due to the following: the free-rider problem, the raider may face competition from other bidders and incumbent management (Hart, 1995).[5]

2.3.0 Blockholders and Institutional Investors

Outside blockholders are a potential solution to agency problems that arise due to separation of ownership and control. With large equity interest, blockholders can monitor managers and influence their decisions by electing board members to act on their behalf. For example, Chen and Yur-Austin (2007) provide evidence that outside blockholders are more efficient in reducing managerial discretionary expenses while inside blockholders, especially managerial blockholders significantly increase the underinvestment problems.[6] Several other studies provide evidence that institutional investors play an important monitoring role

[5] Small shareholders who believe that their decisions are unlikely to affect the success of the bid have an incentive not to tender to the raider, since they may be able to obtain a pro-rata fraction of the capital gain by holding on to their shares (Hart, 1995)

[6] Chen and Yur-Austin (2007) used Selling, General and Administrative expenses to proxy for managerial discretionary spending and Market-to-Book value as a proxy for underinvestment.

(Hartzell and Starks, 2003; Bushee, 1998; Wahal and McConnell, 2000; Brickely et al., 1988; and Agrawal and Mandelker, 1992).

In contrast, blockholders may not be effective monitors if they are able to sell the holdings in liquid secondary markets. It can be argued that the highly liquid nature of the U.S. secondary markets, along with regulations, make it difficult for large shareholders to monitor managers (Mayer, 1988 and Coffee, 1999). Evidence to support this argument is provided by Kahn and Winton (1998). In addition, Parrino et al., (2003) find that aggregate institutional ownership and the number of institutional investors decline in the year prior to forced CEO turnover. This implies that institutional investors prefer to sell their holdings rather than to monitor and remove poorly performing managers. Furthermore, large shareholders may use their voting power to improve their own position, agree to leave managers alone in exchange for having their share repurchased at a premium or they may take over management of the firm for themselves (Hart, 1995). For these reasons, the effectiveness of large shareholders as monitors is questionable.

The literature on block ownership is surveyed by Holderness (2003). The evidence to date indicates that outside blockholders are not that uncommon. First, blockholders seek to increase value and enjoy private benefits of control not available to other shareholders. Second, there is some evidence that larger ownership by blockholders has a positive impact on a firm. For example, the presence of an external blockholder on the board increases the likelihood of a change in control.

2.4.0 Board of Directors

As an internal governance mechanism, the board of directors performs four major functions. These include: hiring top management, compensating and evaluating the performance of top management; voting on major operating proposals (for example, large capital expenditures); voting on major financial decisions (for example, issuing dividends and share repurchases) and offering expert advice to management (Kim and Nofsinger, 2004). Another critical role of directors, at least in theory, is the monitoring function of the board. Directors are expected to monitor managers and fulfill their fiduciary duty by ensuring that managers act in the interests of shareholders. However, the board of directors can often be a "rubber stamp" for CEOs. This is evident in some of the most infamous corporate failures such as Enron and WorldCom. Similarly, when CEOs control the nomination process and influence the choice of directors, the board of directors can be ineffective monitors because potential directors will be ones who are more likely to support the CEO (Becht et al., 2003).

Furthermore, the size of the board has an impact on its effectiveness.[7] Larger boards may have the breadth and expertise to deal effectively with issues confronting the business because the talent pool is deeper as boards become larger. However, it can be difficult to keep a larger number of people involved and working efficiently as a team (Colley et al., 2005). With smaller boards, directors can become more focused and can collaborate more easily. Most of the recent regulations and exchange rules focus on board effectiveness and independence.

[7] Board size may be a function of complexity of the firm's operations and the type of industry in which it operates. The typical board size ranges from 8 to 16 directors.

Rules and regulations, such as Sarbanes-Oxley Act, and the NYSE and NASDAQ corporate governance guidelines, are aimed at improving independence and effectiveness of the board in the U.S. The Dey report (1994) in Canada and the Cadbury report (1992) in the U.K. contain similar recommendations. Findings on the effectiveness of independent directors are mixed. Several studies provide evidence of a negative relationship between the number of outside directors and company performance in the U.S. (Yermack, 1996; Klein, 1998; Agrawal and Knoeber, 1998). On the other hand, other studies provide evidence that there is a positive relationship between outside directors and firm performance (Fama, 1980; Fama and Jensen, 1983 and Rosenstein and Wyatt, 1990). The conflicting result could be driven by the fact that directors who are considered as outside directors are not truly independent directors. For example at Disney, several of the outside directors have personal and related business ties to Michael Eisner, the CEO.[8]

Hermalin and Weisbach (2003) survey the literature on the board of directors and highlight some of the common findings. First, smaller boards and boards with a greater proportion of outside directors result in management taking actions more in line with shareholders' interest. Second, smaller boards and boards with more "independent" directors are more likely to remove poorly performing managers. Third, CEO compensation packages are also more sensitive to performance in firms with smaller boards. Fourth, boards with a greater proportion of outside directors seem to make better acquisition related decisions. However, the bulk of the evidence indicates that the proportion of outside directors is not

[8] According to Kim and Nofsinger (2004), Disney claims that 13 of the 16 directors are independent members of the board. However, of these "outside" directors, Reveta Bowers, is the headmaster of the school Eisner's children attended. Also, Leo O'Donovan is president of Georgetown University, which one of the Eisner children attended and which received donations from Eisner. Other "outside" directors such as Irwin Russell is Eisner's personal attorney and Robert Stern is an architect for several of Disney's projects. It is evident that these members are not true independent directors since they have ties to the CEO.

related to firm performance. In terms of firm characteristics and board of directors, larger firms, older firms and firms with small inside ownership stakes have more outside directors. Closely held firms have insider dominated boards (Hermalin and Weisbach, 2003).

2.5.0 Executive Compensation

Executive compensation in the U.S. and in most countries has increased dramatically over the past few decades. The primary reasons include: the bull market throughout most of the 1980s and 1990s, the increased use of stock options and ways in which compensation packages are determined according to market standards and benchmarking (Becht et al., 2003). According to the agency theory, incentive based compensation should result in a net increase in shareholders' wealth. Habib and Ljungqvist (2005) provide evidence to the contrary. They find that Q-ratio falls as CEO's option holdings increase. However, evidence in favor of the agency theory comes from event studies by Larcker (1983), DeFusco et al., (1990), and Morgan and Poulsen (2001).

Surveys of the executive compensation literature are provided by Murphy (1999) and Core et al., (2003). The major findings of the papers surveyed by these authors are as follows: (i) sensitivity of pay-performance has increased over time due to pay packages with more incentive based compensation which is predominantly option based compensation; (ii) the evidence on the relationship between managerial equity ownership and performance is mixed and (iii) stock options are the fastest growing component of CEO compensation. The authors argue that an increase in option based compensation is driven by several factors. First, options do not require cash outlay by the firm. Second, options and stocks are treated as deferred compensation providing tax advantages for both the firm and executives. These

findings have important implications for compensation packages which are being used as a corporate governance mechanism to align the interests of managers with those of shareholders. Murphy (1999) and Core et al., (2003) argue that we do not fully understand why stock options have become an increasingly important part of executive compensation packages.

3.0 Brief history of the dual class market in the United States

In the 1920s, firms in the U.S. began issuing two classes for common shares. This allowed one group of shareholders to control firms with a disproportionately large number of voting rights relative to equity (cash flow rights) ownership. In 1926, there were 183 firms with a dual class share structure (Dewing, 1953).[9] The New York Stock Exchange (NYSE) was concerned with the separation of voting and cash flow rights and therefore, prohibited the listing of non-voting securities in 1926. This prohibition remained in place until 1985. A few companies such as, Ford Motor Company were able to get around the NYSE prohibition by issuing a class with inferior voting rights rather than non-voting shares (Howell, 2009). On the other hand, the American Stock Exchange (AMEX) and National Association of Securities Dealer (NASD) did not prohibit the listing of firms with dual class share structure (Bayley, 1989).[10] AMEX permitted companies to issue multiple classes of common stock but only listed designated classes. However, NASD imposed no limitation on the use of multiple classes of common shares (Bayley, 1989).

[9] For a detailed history of dual class share structure in the U.S. see Howell (2009)

[10] There were only 10 NYSE listed firms with dual class structure in 1985 compared to 60 firms (7% of listed firms) on AMEX and 110 firms (2.7%) with dual class structure on NASDAQ (Seligman, 1988).

Because of the trend in dual class capitalization, the NYSE felt increasing competitive pressure from AMEX and NASD to alter its prohibition on dual-class mechanisms (Bayley, 1989). Therefore, in September 1986, NYSE sought to suspend its enforcement of the one-share one-vote standard. However, the Securities Exchange Commission (SEC) did not approve the NYSE proposed rule change but instead solicited public comments and held hearings in December, 1986 (Bayley, 1989). As a result, in 1988, the SEC formally adopted Rule 19c-4. Prior to rule 19c-4, companies commonly introduced dual class share structures through a recapitalization. However, the Rule 19c-4 prohibits the creation of dual class structure through recapitalization.[11] Rule 19c-4 allows for the creation of dual class firms via initial public offerings and in 1988 and 2007, 6.7% and 7.2% of publicly listed firms used dual class share structures (Howell, 2010). Listing of dual class firms in the U.S. has remained fairly constant. For example, in 2002, about 6% of all publicly traded firms in the U.S. (or 362) were dual class firms (Gompers, et al., 2010).[12]

The following characteristics pertain to dual class firms in the U.S. Gompers et al. (2010) provide evidence that the typical voting structure for firms with two classes of common share is at a ratio of 10 to 1. In addition, 13% of dual class firms in the U.S. give the inferior voting class a higher dividend. Typically, the superior voting shares do not trade but are held by the controlling shareholders. In the U.S., 15% of dual class firms list both classes for shares. In addition, insiders of dual class firms own a majority of the voting rights (60%) and a significant minority of the cash flow rights (40%).

[11] Amoako-Adu and Smith (2001) argue that there are few regulations for dual class firms in Canada relative to other countries. Apart from the coattails provisions, there are no other specific Ontario Securities Act restrictions and regulations for dual class firms.

[12] Howell (2009) provides evidence that dual class firms' listing increased slightly from 6.7% in 1988 to 7.2% in 2007. In 2002, 9.97% of TSX-listed firms in Canada were dual class firms compared to 5.7% in 2007.

A survey by Rydqvist (1992) of the dual-class literature identifies several common characteristics among dual class firms. Most dual class firms are family-controlled firms (Smith and Amoako-Adu, 1999 and Cronqvist and Nelisson, 2005) and hence, these firms are reluctant to undertake seasoned equity offerings. Worldwide, dual class firms are usually smaller and younger than single class firms (Rydqvist, 1992). However, dual class firms in the U.S. and Canada are usually larger and older (Smith, et al., 2009 and Gompers et al., 2010). In addition, dual class firms are more highly leveraged and have a lower value than single class firms in both Canada and the U.S. (Smith, et al., 2009 and Gompers et al., 2010).

In the case where both classes of shares are trading, superior voting shares (SV) trade at a premium. The general argument for the price differential between superior and restricted voting shares is that voting premiums are related to potential takeover premiums (Levy, 1982; Horner, 1988; Megginson, 1990; and Smith and Amoako-Adu, 1995). Voting premiums are significantly reduced when firms are cross-listed in the U.S. (Doidge, 2004).

Voting control has economic value and voting premiums will depend on the voting differential of the two classes of stocks and the properties of each class of shares in the firm's equity structure. (Levy, 1982) Voting rights in many countries are worth between 10% and 20% of the value of common equity (Zingales, 1994). Zingales (1994) provides evidence that voting shares with inferior dividend rights trade at an average premium of 82% above nonvoting shares in Italy. He argues that, if there were no private benefits, there would be no reason to hold large blocks of shares in any company. Therefore, concentration itself is an indication of a large value of control. In a study of British firms, Megginson (1990) finds that superior voting (SV) shares trade at a premium (13.3%) relative to

restricted voting (RV) shares. Similarly, Lease et al., (1983) test whether control is valued by examining firms with two classes of shares outstanding. Both classes of shares have identical dividend and distribution rights as well as liquidation rights in the event of insolvency. They only differ in terms of their voting rights. Price difference reflects differences in "future benefits". A majority of the firms with superior voting (SV) shares trade at a premium relative to restricted voting (RV) shares.

The evidence that dual class share structure is detrimental to minority shareholders is somewhat mixed. For example, Partch (1987) compares managerial ownership before and after the creation of a class of limited voting common stock for 44 publicly traded firms between 1962 and 1984, and examines whether the event affects the wealth of current shareholders. Partch (1987) argues that there is no evidence that current shareholders are harmed by the creation of limited voting common stock. Similar evidence is provided by Ang and Megginson (1989) and Cornett and Vetsuypens (1989). On the other hand, Jarrell and Poulsen (1988) find negative abnormal stock price returns at the announcement of the dual class recapitalization. In the case of Canada, Jog and Riding (1986) provide similar evidence. Amoako-Adu and Smith (2001) present numerous legal disputes between controlling and outside shareholders. Such disputes arise because of the agency problems which tend to be associated with dual class shares. Agency problems are a major factor which may explain the observed fact that dual class firms sell at a valuation discount compared to a control sample of single class firms with concentrated ownership.

4.0 Further areas of research and unresolved questions

Holderness (2003) argues that we need to fully understand the relationship between control and fractional ownership, whether by inside or outside blockholders. I attempt to address this issue from the perspective of concentrated control and ownership structure. There is substantial and fairly consistent evidence that dual class structure is associated with lower valuation. I want to address whether this discount is associated with the extraction of private benefits of control by examining channels through which private benefits can be extracted. Also, dual class ownership structures can allow managers to become entrenched. Therefore, investors discount the value of dual class firms relative to single class companies with concentrated control.

The existing evidence on many of the corporate governance mechanisms fails to establish a convincing link between these mechanisms and firm value. One possible reason is that corporate governance systems are not important enough to have a meaningful impact on firm value. However, it can be argued that various corporate governance mechanisms may interact in complicated ways with each other and other aspects of the firms. Therefore, a particular mechanism valuable for one group of firms may not have an effect on another group. Hence, it is difficult to identify certain relationships by looking at a broad cross-section of firms (Denis (2001). I propose to take a narrower focus by separating firms into different ownership structures such as dual and single class with concentrated control and investigate how differences in ownership structure and control affect dividend policy. In this way, I will hold constant the impact of concentrated control and isolate the impact of dual versus single class share structure.

In addition, we do not know whether dual class firms possess other countervailing governance mechanisms such as outside directors, stronger pay-for-performance or strong monitoring by outside blockholders, which may decrease potential agency conflicts. By pursuing research on closely controlled companies, we can increase our understanding of this particular group of firms and increase our ability to better regulate large or active shareholders to obtain the right balance between managerial discretion and minority shareholder protection.

The first dissertation essay titled, **Dual Class Discount, Agency Problems and Wealth Expropriation,** is presented in Chapter 2. The aim of the essay is to address the following question: Is the valuation discount of dual class companies compared to concentrated control single class firms due to greater extraction of private benefits? The valuation discount of dual class companies is documented in the literature (King and Santor, 2008; Gompers et al., 2010; and Smith et al., 2009). The general conclusion of these and other studies is that the discount reflects the extraction of private benefits. However, there is no systematic evidence showing the channels of extraction of private benefits which may result in the valuation discount between dual class companies and single class companies with concentrated control. In addressing the above question, I examine three channels through which private benefits of control can be extracted using a panel dataset of 792 firm-year observations from the S&P 1500 group of firms that have dual class share structure and a propensity score matched sample of single class firms with concentrated ownership. These channels are: excess compensation to all senior executives, excess cash holdings and capital expenditure.

Using a panel regression with industry and year fixed effects, the main result is that investors believe that controlling shareholders and managers in dual class firms are using their voting control to extract private benefits and therefore, investors discount the value of dual class companies. I demonstrate that the greater the excess compensation and excess cash holding, the larger the valuation discount of dual class companies. First, after controlling for firm characteristics and governance determinants of executive compensation based on prior literature, I find that the separation of voting and cash flow rights leads to higher executive compensation for all executives. Furthermore, family executives received significantly higher compensation compared to non-family executives in the same position. In a sub-sample of family executives only, I show that family executives in dual class firms extract higher compensation relative to family executives in single class concentrated control firms. Second, I find that dual class firms retain more cash holdings compared to single class firms. Excess cash holdings, in turn, lead to a larger valuation discount of dual class companies. The results are consistent with investors' belief that managers and controlling shareholders of dual class firms are using excess cash in pursuit of private benefits.

The second dissertation essay titled **Ownership Structure, Agency Problems and Dividend Policy** is presented in Chapter 3. In this essay, I investigate how concentrated control through dual versus single class share structure affects dividend policy. I use a propensity score matched sample of dual and single class companies with concentrated control. I propose three competing explanations of dividend policy in firms with concentrated control. The extraction of private benefits hypothesis, the family legacy hypothesis and the managerial reputation hypothesis are proposed and tested. The

extraction of private benefits hypothesis states that managers of dual class firms set a low payout policy in order to retain resources within firms which can be extracted as private benefits. The family legacy hypothesis predicts that controlling shareholders in dual class firms are more likely to maximize firm value and hence, are less likely to extract wealth from the firm for their own benefits. Therefore, firms that are family controlled may retain resources in order to ensure survival and growth of the firm which is beneficial to several generations of family members. The managerial reputation hypothesis states that investors are concerned about the extraction of private benefits. Therefore, higher dividend payout commits the firm to raise capital more frequently and hence, the firm is subjected to increased scrutiny by investment professionals, investors and the capital market (Rozeff, 1982 and Easterbrook, 1984).

Using Tobit estimation and panel regression with industry and fixed effects, the major findings are as follows: first, dual class firms tend to payout less dividend and repurchase fewer shares. Second, the greater the divergence between voting and cash flow rights, the lower the cash dividends and total distribution. This is consistent with both the extraction of private benefits and family legacy hypotheses. Third, using excess compensation of the controlling shareholders-executives, I show that lower payout policy is consistent with the extraction of private benefits of control hypothesis.

The third dissertation essay titled, **The Valuation Effects of Managerial Entrenchment on Dual Class Discount** is presented in Chapter 4. In this essay, I investigate the relationship between managerial entrenchment and the documented dual class discount. Managerial entrenchment is expected to reduce the value of the firm as there is a lack of discipline on managers to address the poor performance. Several studies provide

evidence indicating that dual firms are discounted compared to single class firms (King and Santor, 2008, Gompers et al., 2010, Smith et al., 2009). One possible explanation for the dual class discount is managerial entrenchment. Entrenched managers are more likely to extract private benefits of control and therefore, investors are likely to discount dual class firms relative to single class concentrated control companies.

Using a sample of dual class firms and a propensity matched sample of single class companies with concentrated control, I show that CEOs and directors in dual class firms are more entrenched. CEOs and directors of dual class firms tend to have longer tenure compared to their counterparts in single class companies. Furthermore, Entrenchment should be defined in the context of poor performance by management and hence, it is important to account for this performance. Conditional on poor performance, I show through panel regression that dual class firms with excess CEO tenure, E-index or excess directors' tenure are discounted more by investors. This implies that investors price the impact of managerial entrenchment in firms with dual class ownership structure.

5.0 References

Agrawal, A., and Knoeber, C. R., (1998), Managerial compensation and the threat of takeover, *Journal of Financial Economics,* 47, 219-239

Agrawal, A., and Mandelker, G., (1992), Shark repellents and the role of institutional investors in corporate governance, *Managerial and Decision Economics*, 13, 15-22

Amoako-Adu, B., and Smith, B. F., (2001), Dual class firms: capitalization, ownership structure and recapitalization back into single class, *Journal of Banking and Finance*, 25, 1083-1111

Ang, J. S., and Megginson, W. L., (1989), Restricted voting shares, ownership structure and market value of dual-class firms, *Journal of Financial Research*, 12, 301-318

Bayley, K., (1989), Rule 19c-4: The death knell for dual-class capitalization, *The Journal of Corporation Law*, 15, 1-25

Becht, M., Bolton, P., and Roell, A., (2003), Corporate governance and control, *Handbook of Economics of Finance*, 1, 1-109

Berle, A. and Means, G., (1932), The modern corporation and private property, Macmillan, New York

Brickely, J., Lease, R., and Smith, C., (1988), Ownership structure and voting in antitakeover amendments, *Journal of Financial Economics*, 20, 267-291

Bushee, B., (1998), The influence of institutional investors on myopic R&D investment behavior, *The Accounting Review*, 73, 305-333

Cadbury, Sir Adrian, (1992), Study group on directors' remuneration, *Final Report*

Canada, Toronto Stock Exchange Committee on Corporate Governance in Canada, 1994, Where were the directors? (Dey Report), Toronto stock Exchange: Toronto, December 1994

Chandler, A. D., Jr., (1962), Strategy and Structure: Chapters in the history of the American industrial enterprise. Cambridge, MA: MIT Press

Chandler, A. D., Jr., (1977), The Visible hand, Cambridge, Mass. and London, England: The Belknap Press of Harvard University Press

Chen, X., and Yur-Austin, J., (2007), Re-measuring agency costs: The effectiveness of blockholders, *The Quarterly Review of Economics and Finance*, 47, 588-601

Coase, R., (1937), The nature of the firm, *Economica*, n.s., 4, 386-405

Coffee, J. C., (1999), The future as history: The prospects for global convergence in corporate governance and its implications, *Northwestern University Law Review*, 93, 641-708

Colley J. L. Jr., Doyle J. L, Logan G. W. and Stettinius, W., (2005), What is corporate governance? McGraw-Hill, New York

Core, J. E., Guay, W., and Larcker, D. F., (2003), Executive equity compensation and incentives: A survey, *Economic Policy Review*, 9, 27-50

Cornett, M. M., and Vetsuypens, M. R., (1989), Voting rights and shareholder wealth: The issuance of limited voting common stock, *Managerial and Decision Economics*, 10, 175-188

Cronqvist, H., and Nilsson, M., (2005), The choice between rights offering and private equity placements, *Journal of Financial Economics*, 78, 375-407

DeFusco, R. A, Johnson, R. R., and Zorn, T. S., (1990), The effect of executive stock option plans on stockholders and bondholders, *Journal of Finance*, 45, 617-627

Denis, D. K, (2001). Twenty-five years of corporate governance research and counting, *Review of Financial Economics*, 10, 191-212

Dewing, A. S., (1953), The financial policy of corporations, New York: The Ronald Press Company

Dey Report (Dec. 1994), Where were the directors? Toronto Stock Exchange Committee on Corporate Governance in Canada, Toronto

Dodd, E. M., (1932), For whom are corporate managers trustees?, *Harvard Law Review*, 45, 1145-63

Doidge, C., (2004), U.S. cross-listing and private benefits of control: Evidence from dual-class firms, *Journal of Financial Economics* 72, 519-553.

Easterbrook, F., (1984), Two agency cost explanations of dividends, *American Economic Review*, 74, 650-659

Fama, E. F., (1980), Agency problems and the theory of the firm, *Journal of Political Economy*, 88, 288-307

Fama, E. F., and Jensen, M. C., (1983), Separation of ownership and control, *Journal of Law and Economics*, 26, 301-325

Freeman, E. R., (1984), Strategic management: A stakeholder approach. Boston: Pitman.

Gompers, P. A., Ishii, J., and Metrick, A., (2010), Extreme governance: An analysis of dual-class firms in the U.S., *Review of Financial Studies*, 23, 1051-1088

Habib, M. A., and Ljungqvist, A. P., (2005), Firm value and managerial incentives: A stochastic frontier approach, *Journal of Business*, 78, 2053-2093

Harris, M., and Raviv, A., (1988), Corporate governance: Voting rights and majority rules, *Journal of Financial Economics*, 20, 203-235

Hart, O., (1995), Firms, contracts, and financial structure. Oxford, Oxford University Press

Hart, O., (1997), Corporate governance: Some theory and implications, *The Economic Journal*, 105, 678-689

Hartzell, J. C. and Starks, L. T., (2003), Institutional investors and executive compensation, *Journal of Finance*, 58, 2351-2374

Hermalin, B. E., and Weisbach, M. S., (2003), Boards of directors as an endogenously determined institution: A survey of the economic literature, *Economic Policy Review*, 9, 7-26

Holderness, C. G, (2003), A survey of blockholders and corporate control, *Economic Policy Review*, 9, 51-64

Holderness, C. G., and Sheehan, D. P., (1988), The role of majority shareholders in publicly held corporations: An exploratory analysis, *Journal of Financial Economics,* 20, 317-346

Horner, M., (1988), The value of the corporate voting right: Evidence from Switzerland, *Journal of Banking and Finance*, 12, 69-83

Howell, J., (2009), Essays on the U.S. dual class share structure, *PhD Dissertation University of Georgia*

Jarrell G., and Poulsen, A., (1987), Shark repellents and stock prices: The effects of antitakeover amendments since 1980, *Journal of Financial Economics*, 19, 127-168

Jensen, M. (1986), Agency cost of free cash flow, corporate finance and takeovers, *American Economic Review*, 76, 323-329

Jensen, M. C., and Meckling, W. H., (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure, *Journal of Financial Economics*, 3, 305-360

Jog, V. M., and Riding A. L., (1986), Price effects of dual-class shares, *Financial Analyst Journal*, 86, 58-66

Kahn, C., and Winton, A., (1998), Ownership structure, speculation and shareholder intervention, *Journal of Finance*, 53, 99-129

Kim, K. A., and Nofsinger, J. R., (2004), Corporate governance. New Jersey: Pearson-Prentice Hall

King, M., and Santor, E., (2008), Family values: Ownership structure, performance and capital structure of Canadian firms, *Journal of Banking and Finance*, 32, 2423-2432

Klein, A., (1998), Firm performance and board committee structure, *Journal of Law and Economics*, 41, 275-30

Larcker, D. F., (1983), The Association between performance plan adoption and corporate capital investment, *Journal of Accounting and Economics*, 5, 3-30

Lease, R. C., McConnell, J. J., and Mikkelson, W. H., (1983), The market value of control in publicly-traded corporations, *Journal of Financial Economics*, 11, 439-491

Levy, H., (1982), Economic evaluation of voting power of common stock, *The Journal of Finance*, 38, 79-93

Mayer, C., (1988), New issues in corporate finance, *European Economics Review*, 32, 1167-1183

Megginson, W., (1990), Restricted voting stock, acquisition premiums and the market value of corporate control, *The Financial Review*, 25, 175-198

Morgan, A. G., and Poulsen, A. B., (2001), Linking pay to performance: Compensation proposals in the S&P 500, *Journal of Financial Economics*, 62, 489-523

Murphy, K., (1999), Executive compensation. In. O. Ashenfelter and D. Card (eds), Handbook of labor economics, 3, Amsterdam: North-Holland

Parrino, R., Sias, R.W., and Starks, L. T., (2003), Voting with their feet: Institutional ownership changes around forced CEO turnover, *Journal of Financial Economics*, 68, 3-46

Partch, M., (1987), The creation of a class of limited voting common stock and shareholder wealth, *Journal of Financial Economics*, 18, 313-339

Rosenstein, S., and Wyatt, J. G., (1990), Outside directors, board independence and shareholder wealth, *Journal of Financial Economics*, 26, 175-191

Rozeff, M. S., (1982), Growth, beta and agency costs as determinants of dividend payout ratios, *Journal of Financial Research*, 5, 249-259

Rydqvist, K., (1992), Dual-class shares: A review, *Oxford Review of Economic Policy*, 8, 45-57

Seligman, J., (1986), Equal protection in shareholder voting rights: The one common share, one vote controversy, *George Washington Law Review*, 54, 687-725

Shleifer, A., and Vishny, R., (1986), Large shareholders and corporate control, *Journal of Political Economy*, 95, 461- 488

Shleifer, A., and Vishny, R., (1997), A survey of corporate governance, *Journal of Finance*, 52, 737-784

Smith B. F., and Amoako-Adu, B., (1995), Relative Prices of dual-class shares, *Journal of Financial and Quantitative Analysis*, 30, 223-239

Smith B. F., and Amoako-Adu, B., (1999), Management succession and financial performance of family controlled firms, *Journal of Corporate Finance,* 5,341-368

Smith, B. F., Amoako-Adu, B., and Kalimipalli M., (2009), Concentrated control and corporate value: A comparative analysis of single and dual class structures in Canada, *Applied Financial Economics,* 19, 955-974

Solomon, J., and Solomon, A., (2004), Corporate governance and accountability, West Sussex, England: John Wiley and Sons

Wahal, S., and McConnell, J.J., (2000), Do institutional investors exacerbate managerial myopia ?, *Journal of Corporate Finance*, 6, 307-329

Yermack, D., (1996), Higher market value of companies with small board of directors, *Journal of Financial Economics*, 40, 185-212

Zingales, L., (1994),The value of the voting right: a study of the Milan Stock Exchange experience, *Review of Financial Studies*, 7, 125-148

Chapter 2

Dual Class Discount, Agency Problems and Wealth Expropriation

1.0 Introduction

A dual class company is a firm with two or more classes of common shares outstanding (superior voting shares and restricted voting shares).[13] A dual class ownership structure allows an individual or a related group of individuals to control the firm with a significant proportion of votes, but with a small proportion of the total equity. As a result, dual class ownership structure can exacerbate the agency conflict between controlling shareholders-managers and minority shareholders. The agency costs of dual class companies is due to monitoring costs associated with two groups of non-controlling shareholders, minority superior voting shareholders and non-voting or restricted voting shareholders. Similarly, agency problems can arise in single class concentrated control companies due to monitoring costs and conflicts of interest between controlling and non-controlling shareholders. However, alignment of interest is stronger compared to dual class firms due to the larger equity ownership in single class concentrated control companies.[14] This may reduce the impact of agency problems on firm value. Agency costs are expected to be higher in dual class firms because insiders have to deal with both the minority shareholders

[13] Restricted voting shares (RV) are defined as common shares with votes ranging from no vote to one vote per share. Superior voting shares (SV), on the other hand, are common shares with more votes per share than restricted shares. A typical superior voting share has a 10:1 ratio that is, 10 votes per share (Gompers et al., 2010).

[14] Dual class ownership structure can lead to weaker alignment of interest among shareholders compared to single class closely-held companies due to the divergence of voting and cash flow rights.

of the multiple voting shares and the shareholders of the restricted voting shares. Given the greater divergence in interests of controlling and outside shareholders, agency costs associated with monitoring and disciplining are expected to be higher in dual class firms (Correia da Silva et. al., 2004). The argument that dual class companies may have bigger agency problems is made by Grossman and Hart (1988), Bebchuk et al. (2000), Correia da Silva et al. (2004) and King and Santor (2008).

Controlling shareholders-managers in dual class companies can use their voting control to influence their compensation, resulting in the extraction of private benefits and agency costs. These controlling shareholders-managers, by virtue of their voting power, can influence the composition of the board of directors and therefore influence the board's effectiveness as a governance mechanism. Furthermore, controlling shareholders-managers in single class companies with concentrated ownership can also use their equity ownership to influence the board of directors and therefore, they can influence their compensation and extract private benefits of control in the form of perquisites and higher compensation.[15] However, extraction of private benefits may be greater in dual class companies because of the smaller proportion of equity ownership relative to control rights. Therefore, as the divergence between the manager's voting and equity interest widens, the incentive for the manager to expropriate private benefits from the corporation increases (Grossman and Hart, 1988 and Bebchuk et al., 2000). Hence, the value of dual class firms may be lower compared to single class concentrated control companies due to weaker alignment of interest, extraction of private benefits and higher agency costs.

[15] Following La Porta et al., (1999) and Claessens et al., (2000), a single class firm with concentrated control is defined as a firm with ownership of 15% of the shares outstanding by an individual, a family or an institution.

The main objective of this essay is to analyze the documented valuation discount of dual class firms and to relate the discount to three direct avenues through which controlling shareholders and managers can extract private benefits from dual class companies. The means through which controlling shareholders of dual class companies can expropriate wealth from the firm are: excess executive compensation, capital expenditure and excess cash holdings. Using these mechanisms, the paper investigates whether investors are aware of the agency costs and potential extraction of wealth by controlling shareholders and managers from dual class companies and as a result, discount the value of dual class companies compared to single class concentrated control companies. Therefore, the aim of this research is to address the following question: Is the valuation discount of dual class companies compared to concentrated control single class firms due to greater extraction of private benefits? The valuation discount of dual class companies is documented in the literature (King and Santor, 2008; Smith et al., 2009 and Gompers et al., 2010). The general conclusion of these and other studies is that the discount reflects extraction of private benefits. However, there is no systematic evidence showing the channels of extraction of private benefits which may result in the valuation discount between dual class companies and single class companies with concentrated control.

Masulis et al. (2009) are the first to examine the channels through which managers can pursue private benefits and provide evidence that managerial extraction of private benefits is influenced by divergence of control and cash flow rights in a sample of dual class firms. They find that as divergence in voting and cash flow rights increases, corporate cash holdings are worth less to outside shareholders, CEOs of dual class companies receive higher levels of total compensation, managers undertake value-destroying acquisition more

frequently and capital expenditure contributes less to shareholder value. Hence, managers with greater control rights in excess of cash flow rights are prone to wasting corporate resources to pursue private benefits at the expense of shareholders.

My research differs from Masulis et al. (2009) in several important aspects. First, I directly relate dual class discount to the channels through which controlling shareholders-managers can extract private benefits and I test the rational investor hypothesis. Under this hypothesis, investors expect executives in dual class companies to use their voting power to extract private benefits and as a result, they discount the value of dual class companies. Second, I argue that controlling shareholders and managers in single class concentrated control companies can also use their ownership control to extract private benefits. Therefore, it is important to examine the channels of wealth expropriation by comparing concentrated control in dual class companies with concentrated control in single class companies. The difference between dual class and concentrated control single class is how control is achieved. In dual class firms, control occurs through superior voting shares with proportionally less equity ownership. Therefore, controlling shareholders and managers in dual class companies are more likely to use their voting power to extract private benefits. In comparison, control in single class firms occurs through significant equity ownership and hence, executives in single class concentrated control companies are less likely to extract private benefits. Third, unlike Masulis et al. (2009), I examine all the senior level executives' compensation, not only the CEO compensation. This is important since family involvement tends to be higher in dual class companies and excess compensation paid to these family members would be a perquisite flowing from control. In fact, 83.2% of dual

class firms have some degree of family involvement.[16] For example, 45.9% of dual class executives who serve as both CEO and President are family members, compared to 17.6% in single class companies. It remains to be seen whether family executives in dual class companies use their voting power to influence their compensation and whether their compensation is excessive compared to family executives in single class concentrated control companies.[17] Hence, excess compensation paid to family executives will provide further evidence of private benefits of control and agency costs associated with dual class ownership structure.

Exorbitant CEO pay packages have been widely regarded as a major form of private benefits and are a symbol of poor governance (Masulis et al., 2009). Therefore, it is possible that investors are aware of this and as a result, discount the value of dual class companies compared to single class concentrated control companies. Similarly, excess corporate cash holdings and excess capital expenditure are other mechanisms through which managers can pursue private benefits of control. However, it is not clear whether investors, knowing that controlling shareholders and managers can potentially misuse excess corporate cash holdings, discount the value of dual class companies. The prior literature does not examine whether dual class companies compared to single class concentrated control firms retain excess cash, or pay their executives excess compensation.

Using a propensity score matched sample of dual and single class concentrated control companies, I provide evidence to support the argument that investors believe that controlling shareholders and managers in dual class firms are using their voting control to

[16] Family involvement typically includes the following: family members as senior executives of the company, as consultants to the company, as directors of the company or as controlling shareholders.
[17] A family executive is defined as an individual who is a member of the senior management team and is related to the controlling shareholder or founding family, either by blood or marriage.

extract private benefits and therefore, investors discount the value of dual class companies. I demonstrate that the greater the excess compensation and excess cash holding, the larger the valuation discount of dual class companies after controlling for factors that have been proven to partially explain the dual class discount. First, after controlling for firm characteristics and governance determinants of executive compensation based on prior literature, I find that the separation of voting and cash flow rights leads to higher executive compensation for all executives. This implies that executive compensation is one avenue through which managers are extracting private benefits. Since dual class companies frequently employ family members, excess compensation paid to family executives allows us to test whether dual class ownership structure and family involvement leads to extraction of private benefits of control and agency costs. I find that family executives received significantly higher compensation compared to non-family executives in the same position. In a sub-sample of family executives only, I show that family executives in dual class firms extract higher compensation relative to family executives in single class concentrated control firms.

Second, corporate cash holdings provide managers with the most latitude as to how and when to spend it (Masulis et al., 2009). Univariate tests show that dual class companies, on average, tend to retain excess cash compared to single class concentrated control companies. This excess cash can be easily diverted or misused by controlling shareholders and managers. Hence, managers may spend part or all of the excess cash in order to pursue private benefits such as perquisite consumption. Investors, knowing this, may value corporate cash holdings of dual class firms less compared to cash holdings of single class companies. Consistent with this prediction, I find that excess cash holdings lead to a larger

valuation discount of dual class companies. However, capital expenditure does not explain dual class discount. This implies that investors do not view capital expenditure as a potential avenue of extraction of private benefits.

2.0 Dual Class Discount

Using a sample of only dual class firms with both classes of shares trading, empirical studies generally find that superior voting shares trade at a premium or alternatively, restricted voting shares trade at a discount, relative to superior voting shares.[18] The general argument for the price differential between superior and restricted voting shares is that voting premiums are related to potential takeover premiums and private benefits of control (Levy, 1983; Lease et al., 1983; Horner, 1988; Megginson, 1990; Rydqvist, 1992; Smith and Amoako-Adu, 1995, and Zingales, 1995).

Equally important, other studies examine the impact of dual class share structure on the overall firm value using a proxy for Tobin's Q as a valuation measure. These studies find that the greater the divergence between voting and cash flow rights, the lower the value of dual class firms compared to single class companies (King and Santor, 2008; Gompers, et al., 2010; Smith et al., 2009). Furthermore, family control of dual class firms can exacerbate the agency problems and lead to a greater discount. In the Canadian context, King and Santor (2008) find that family ownership and dual class share structure leads to a 17% discount relative to other firms. In addition, Smith et al., (2009) examine dual class companies compared to single concentrated control companies and find that the value of dual class companies is discounted relative to single class concentrated control companies.

[18] The sample size in these studies is generally small as only a small fraction of dual class firms have both classes of shares trading.

This discount can be explained by private benefits of control and agency problems of dual class ownership structure. Therefore:

$$Q_{Single\ Class\ Concentrated\ Control} = Q_{Dual\ Class} + Discount \quad (1)$$

Thus, the dual class discount is the valuation wedge between dual class companies and single class concentrated control firms. Based on the previous literature, it can be argued that dual class discount is reflective of the agency problems of dual class ownership structure and potential wealth expropriation in the form of private benefits.

$$Discount = \left(Q_{Dual\ Class} - Q_{Single\ Class\ Concentrated\ Control}\right) \quad (2),$$

where Q is a proxy for Tobin's Q ratio.

Using the definition of "free cash flow" and considering the cash flow differential between dual and single class firms,

$$Dual\ Class\ Discount = f\{[(R - OC - D)(1-t) + D] - \Delta Capex - \Delta Working\ Capital\} \quad (3),$$

where R is defined as total revenue, OC is operating costs including executive compensation, D is depreciation, t is corporate tax rate, $\Delta Capex$ and $\Delta Working\ Capital$ are allocations for capital expenditure and net working capital, respectively. From the above definition, we can identify potential avenues through which private benefits can be extracted from dual class companies by insiders. These channels are: executive compensation which

is part of the operating costs, capital expenditure (Capex) and cash and near cash which are part of the working capital.

Alternatively, following the several studies on diversification discount such as Lang and Stulz (1994), Berger and Ofek (1995) and Villalonga (2004), I estimate the value effects of dual class ownership structure based on the industry adjusted difference between the dual class firm's Q ratio and the industry average Q ratio.[19] Following Villalonga (2004), I compute industry means and medians using 4-digit and 3-digit SIC codes for which there is a minimum of five single class firms in the industry for given year.[20]

3.0 Literature Review and Hypothesis Development

3.1.0 Ownership Structure and Compensation

Firms with concentrated control may be subject to agency costs arising from conflicts of interest between minority and majority shareholders (Cheung et al., 2005).[21] Controlling shareholders can use their influence to extract private benefits of control at the expense of minority shareholders. A potential avenue for such an extraction is through executive compensation because controlling shareholders-executives or owners-directors effectively set their own compensation. Empirical evidence relating equity ownership and

[19] Studies by Lang and Stulz (1994), Berger and Ofek (1995) and Villalonga (2004) examined the diversification discount, that is the excess value between multi-segment (diversified) firms and single-segment firms.

[20] In 9% of the cases, I relied on 2-digit SIC codes to compute the industry averages, in 33% of the cases I used 3-digit SIC codes and in 68% of cases I used 4-digit SIC codes.

[21] Minority shareholders are defined as dispersed shareholders with a small fraction of the outstanding shares or where their total votes are less than 15%. A controlling shareholder is a shareholder with more than 15% equity ownership or voting rights.

executive compensation is mixed.[22] Prior studies show that top executives owning a majority block of common shares receive higher salaries and bonuses than top executives in similar sized, but diffusely held firms (Holderness and Sheehan, 1988). Cheung et al. (2005) find a positive relationship between cash emoluments received by the CEO and the Chairman and their respective shareholding for levels of ownership of up to 35% in small firms and up to 10% in large firms.[23]

On the other hand, several studies examining ownership and executive compensation find that greater ownership concentration lowers the ability of executives to extract higher levels of compensation (Dyl, 1988; Goldberg and Idson, 1995; Hartzell and Starks, 2003; Haid and Yurtoglu, 2006).[24] For example, Dyl (1988) provides evidence that corporate control in firms with concentrated ownership is negatively related to total CEO compensation.[25] This implies that in these firms, major shareholders engage in monitoring activities which reduce agency costs. In addition, Hambrick and Finkelstein (1995) argue that when externally-controlled owners have direct or indirect influence over CEO pay, they will have a pay philosophy which is to minimize CEO pay subject to the ability to attract and retain a "satisfactory" CEO. Ownership concentration in these studies predominantly occurs through significant equity ownership in single class firms. There is little evidence examining concentrated control where control occurs through voting power with limited equity investment (dual class share structure).

---

[22] See Murphy (1999) and Core et al. (2003) for surveys of the executive compensation literature.

[23] Cheung et al., (2005) examine cash emoluments and dividends as income to CEOs and Chairmen. They did not examine other senior level executives or other forms of compensation such as options.

[24] The firms examined by Haid and Yurtoglu (2006) are closely-held with an average ownership of 53% by the largest shareholders and 65% by the three largest shareholders. The derivation of voting rights and cash flow rights in their sample occurs primarily through pyramid structure. Hartzell and Starks (2003) provide evidence that institutional ownership is negatively related to the level of compensation for the top management as a group.

[25] Dyl (1988) utilizes the percentage of the total shares outstanding owned by the five largest shareholders as a measure of concentrated control.

Denis (2001) argues that it may be difficult to identify the effects of various corporate governance mechanisms because they interact with other firm characteristics in complicated ways. In studies of corporate governance, one of the fundamental distinguishing characteristics among firms is whether they are closely controlled or widely held. Along this line of argument, instead of analyzing executive compensation in a broad cross-section of firms, by examining only closely controlled companies, I can better identify the effects of dual and single class ownership structures on extraction of private benefits in the form of excess executive compensation. It is not clear whether executives in dual class firms pay themselves more than executives in single class firms with concentrated control. According to the private benefits of control hypothesis, executives in dual class firms will tend to extract private benefits. This can be in the form of excess compensation relative to a control group of firms.

> H1: *In dual class firms, executives have the ability to extract excess compensation. After controlling for firm characteristics and governance attributes, I expect executives in dual class firms to have higher compensation compared to executives in single class concentrated control firms.*

3.2.0 Family Executives and Compensation

The ownership concentration and management in the hands of a family gives a lot of power to the family executives. It enables them to take actions that are beneficial to themselves which may be detrimental to minority shareholders. Family executives, because of their control, are more likely to receive higher compensation compared to non-family executives due to their influence over the board of directors.[26] They may use their power to

[26] Following Anderson and Reeb (2003) and Villalonga and Amit (2005), a family firm is defined as one in which the founder or a member of his or her family, by either blood or marriage, is an officer, director or

influence the remuneration process thereby extracting benefits at the expense of shareholders (Bebchuk, et al., 2002). On the other hand, in family firms, the firm symbolizes the heritage and tradition of their family and is often a part of their identity. Therefore, family executives are unlikely to act against the interests of the company because in doing so, they may also harm themselves. It is not clear whether the same argument holds for both dual class and single class firms. Family executives in firms with concentrated ownership and control are in a position to exert their influence on the composition of the board and its various committees. Therefore, concentrated control may allow executives to extract private benefits. Hence, family ownership and control can affect family and non-family executive compensation in very different ways.

The evidence on the relationship between family ownership and compensation is mixed. There is evidence that family CEOs earn less compensation compared to non-family CEOs in a group of family firms (McConaughy, 2000 and Gomez-Mejia et al., 2003). Several studies, on the other hand, provide evidence that family executives earn higher compensation compared to executives in non-family controlled firms (Cheung et al., 2005; Basu et al., 2007; and Cohen and Lauterbach, 2008).[27] Cheung et al. (2005) provide evidence that family control is associated with higher executive compensation when the CEO and Chairman have significant shareholdings in the firm and with lower executive compensation when they hold a small percentage of shares outstanding.[28]

---

blockholder, either individually or as a group. In addition, if there are firms with co-founders, I will consider these firms as family firms.

[27] Basu et al., (2007) provide evidence that the founding families retain strong ownership and control rights in Japanese firms. Top executives in Japanese firms earn more in family-controlled firms than firms lacking such influence. In a study of Israeli firms, Cohen and Lauterbach (2008) find that CEOs who belong to a family or a business group that own most of the firm shares receive significantly (about 50%) higher pay than professional CEOs who do not belong to the control group.

[28] Cheung et al., (2005) used an indicator variable to identify whether a firm has family ownership greater than a certain percentage. For example, when family ownership is over 30% or over 50% and executive ownership is

The few studies analyzing dual class share structure and compensation did not separately examine executive compensation of family versus non-family executives in these companies. Family executives in dual class companies are expected to behave differently because they control their companies with a larger proportion of voting rights relative to their equity ownership. Due to the proportionately smaller cash flow consequence to themselves, executives who are family members in dual class companies will find it more attractive to use their control to extract resources from the firm. One possible way of extracting resources is through excess compensation. If the private benefits of control hypothesis is true and family executives extract resources in the form of excess compensation, then I expect (1) higher compensation in firms with family executives relative to other executives in a similar position and (2) higher compensation for family executives in dual class firms relative to family executives in single class concentrated control firms. Therefore:

> H2a: *Family members of the controlling shareholder who are executives are expected to earn higher compensation compared to non-family executives in similar positions in non-family controlled firms.*
>
> H2b: *Family members who are executives in dual class firms are expected to pay themselves higher compensation relative to family members in single class concentrated control firms.*

3.3.0 Dual Class Discount and Corporate Cash Holdings

Agency theories can be used to explain why corporate cash holdings are valued less in countries with poor shareholder protection. Managers and controlling shareholders in

---

10% to 35% the interaction term between family dummy variable and executive ownership is positively related to compensation. One possible reason is that family members in family firms are also executives in these firms. However, Cheung et al., (2005) did not explicitly examine compensation of family executives in their study. Furthermore, it is possible that outside CEOs are appointed to run family firms.

these countries can extract private benefits using corporate cash holdings and use "free cash flow" to pursue value-destroying activities such as acquisition (Jensen, 1986) or to obtain perquisite consumption at the expense of minority shareholders. Harford (1999) provides evidence that cash-rich firms are likely to undertake value-destroying acquisition. Therefore, when managers control the firm, either by equity ownership or by votes, corporate cash holdings can influence firm value. The evidence in the literature shows that the contribution of corporate cash holdings to firm value is lower in countries with weak investor protection (Pinkowitz et al., 2006; Kalcheva and Lins, 2007; and Harford et al., 2008). However, Kalcheva and Lins (2007) also find that when external shareholder protection is strong, cash held by controlling managers is unrelated to firm value. In contrast, Masulis et al. (2009) examine the contribution of one extra dollar of cash to firm value in a sample of dual class companies in the U.S. where investor protection is more stringent than in other countries. They find that the marginal value of cash is decreasing in the divergence between voting and cash flow rights. This is consistent with the evidence provided by Dittmar and Mahrt-Smith (2007) that an extra dollar of cash is valued less by shareholders in poorly governed companies.

Most of the evidence in the prior literature is consistent with the agency theory of "free cash flow" (Jensen, 1986). Shareholders believe that managers are more likely to misuse corporate cash holdings and therefore, shareholders' place a lower value on corporate cash holdings. In keeping with this argument, I investigate the link between the dual class discount and excess cash holdings. Managers and controlling shareholders of dual class firms are likely to misuse corporate cash holdings in pursuit of private benefits. Hence investors, anticipating misused cash holdings by dual class managers, are more likely to

discount the value of dual class companies compared to single class companies with concentrated control.

> H3: *The higher the excess cash holding, the greater the valuation discount of dual class firms relative to single class concentrated control firms after controlling for size, dividend differences, conversion rights and financial leverage.*

3.4.0 Dual Class Discount and Capital Expenditure

Capital expenditure can have a positive effect on firm value if shareholders believe that the firm's capital expenditures are related to positive net present value projects. McConnell and Muscarella (1985) provide evidence that mangers seek to maximize the market value of the firm in making their corporate capital expenditure decisions. Also, Masulis et al. (2009) find that change in capital expenditure has a positive impact on returns for dual class firms. However, insiders' excess control rights reduce the contribution of capital expenditure to shareholder value in dual class firms. Therefore, shareholders believe that insiders' in dual class companies are using capital expenditure to pursue private benefits. As a result, I formulate the following hypothesis:

> H4: *Excess capital expenditure in dual class firms relative to single class firms increases the dual class discount.*

3.5.0 Dual Class Discount and Excess Compensation

If investors believe that excess compensation is a channel through which managers extract private benefits, then the rational investor hypothesis can add to our understanding of the valuation discount of dual class companies by relating excess executive compensation to the valuation discount. Investors, knowing that executives in dual class firms have the ability and incentive to expropriate or extract resources without facing the cash flow consequences,

will discount dual class companies. Therefore, the larger the excess compensation, the greater the dual class valuation discount. This leads to the following hypothesis:

> H5: *The higher the excess executive compensation, the greater the valuation discount of dual class firms relative to single class firms.*

4.0 Methodology and Data

4.1.0 Methodology

The fixed effects regression specification will be utilized to test the various hypotheses in this paper. The fixed effects approach is a common technique in panel data setting. By incorporating industry fixed effects, I account for fixed differences in executive compensation across different industries within the cross-section. Year fixed effects are included to control for any year specific shocks to executive pay and concentrated control.

4.1.1 Ownership Structure and Compensation

The following equation will be estimated in order to test hypothesis 1.

$$Ln(Compensation)_{i,j,t} = \alpha_t + \phi_t\ Mgmt.Vote_{j,t-1} + \sum_{k=1}^{5}\eta_{i,k} Firm\ Characteristics_{k,j,t-1} + \sum_{k=1}^{6}\delta_{i,k} Governance_{k,j,t-1} + \sum_{k=1}^{6}\gamma_{i,k}\ Position_{k,j} + \varepsilon_{i,j,t} \qquad (4),$$

where i is equal to different components as well as total compensation for each executives' compensation package for firm j at year t and management voting leverage (Mgmt. Vote) is

defined as $\frac{\%\ of\ total\ votes\ controlled\ by\ management\ and\ directors}{\%\ of\ total\ equity\ held\ by\ management\ and\ directors}$.[29] Firm characteristics include: size, profitability, growth, risk and financial leverage. The governance variables are as follows: board size, percentage of independent, busy and grey directors, percentage of institutional ownership and percentage of family members on the board of directors.[30] Position is a dummy variable equal to 1 for different executive positions and zero otherwise. For a complete definition of all the variables see Appendix A, Table 1A.

Management voting leverage ratio is an indication of concentrated control relative to equity ownership by senior level executives and directors. It is expected to be positively related to executive compensation, hence, ϕ_i is expected to be positive. A high management voting leverage ratio indicates that managers and directors control a significant proportion of the voting shares relative to their equity stake. Therefore, executives in firms with high management voting leverage are able to exert control over the board and extract more resources or private benefits at the expense of minority shareholders.

Several firm characteristics based on previous studies are used as control variables such as size, performance, investment opportunities, risk and financial leverage. It is expected that larger firms (log of sales), and those with more complex operations (proxy by size) will tend to pay their executives more in order to attract high quality executives (Core et al., 1999 and Chalmers et al, 2006). Board of directors often reward executives for

[29] Instead of using management voting leverage ratio as an indication of concentrated control, I re-estimate equations (4) to (6) replacing management voting leverage with the "wedge" variable. Wedge is defined as the difference in the percentage of votes and the percentage of cash flow rights held by management and directors. The results (not reported) are similar to those presented in Tables 4-6 using wedge instead of management voting leverage.

[30] A busy director is defined as a director with more than four board memberships and grey directors are defined as outside directors who are related to the company through a transactional relationship.

superior performance. Therefore, more profitable firms (ROA or stock return) will tend to pay their executives higher compensation, especially in the form of bonuses and stock options. Hence, profitability is expected to be positively related to compensation. Firms with more growth options will tend to compensate executives more in order to attract executives capable of turning those options into actual growth. Therefore, growth (geometric mean growth in total assets over the previous five years) is expected to be positively related to compensation. Firm risk can be a measure of the firm's operating risk as well as the firm's information environment. Following (Smith and Watts, 1992; Core et al., 1999 and Chalmers et al., 2006), I include a measure for firm risk. Firm risk is measured by the standard deviation of annual returns (Core et al., 1999) and it represents total risk because of the undiversifiable nature of executive contracts. Based on prior literature, firm risk can positively as well as negatively influence the level of compensation. Therefore, the expectation is ambiguous. In addition, several governance variables that explain executive compensation are controlled for in equation (4).

Governance variables include, board size, independent directors, busy directors, grey directors, institutional investors and the percentage of family directors. According to Core et al. (1999), weak governance structure results in greater agency problems and higher compensation. Therefore, a greater percentage of busy and grey directors signifies a weaker governance structure. Hence, busy and grey directors are expected to be positively related to executive compensation. In theory, independent directors are expected to monitor managers and curb excess compensation and therefore increase board effectiveness. However, empirical evidence shows a positive relationship between the percentage of independent directors and CEO compensation (Lambet et al., 1993). One possible explanation is that

independent directors are not truly independent directors such as grey directors.[31] Therefore, after controlling for the percentage of grey directors, the percentage of independent directors is expected to be negatively related to executive compensation. Furthermore, institutional investors can play an important role in executive compensation by using their voting power to influence board composition and thereby limiting rent extraction. Empirical evidence shows that institutional ownership is negatively related to the level of executive compensation (Hartzell and Starks, 2003). As a result, I account for the effects of institutional ownership on executive compensation. In addition to the governance variables used in the literature, since several of the firms are family controlled, I account for the percentage of family directors on the board. Family directors are expected to monitor non-family executives and therefore, reduce compensation of non-family executives. Family directors, on the other hand, may be influenced by family executives and are likely to reward these executives with higher compensation.

4.1.2 Family Executives and Compensation

Testing the effects of family executives on compensation in both dual and single class firms (H2a), the following equation is estimated using a panel regression with year and industry fixed effects.

[31] For example, Disney claims that 13 of the 16 directors are independent members of the board. However, of these "outside" directors, Reveta Bowers, is the headmaster of the school Eisner's children attended. Also, Leo O'Donovan, president of Georgetown University, which one of the Eisner children attended, received donations from Eisner. Other "outside" directors such as Irwin Russell, Eisner's personal attorney and Robert Stern, architect for several of Disney's projects are clearly not true independent directors since they have ties to the CEO. They may be considered as "grey directors" (Kim and Nofsinger, 2004).

$$Ln(Compensation)_{i,j,t} = \alpha_i + \sum_{i,k=1}^{6} \varphi_{i,k} FamilyPosition_{k,j} + \phi_i\, Mgmt.Vote_{j,t-1} + \sum_{k=1}^{5} \eta_{i,k} Firm\ Characteristics_{k,j,t-1} + \sum_{k=1}^{6} \delta_{i,k} Governance_{k,j,t-1} + \sum_{k=1}^{6} \gamma_{i,k} Position_{k,j} + \varepsilon_{i,j,t} \quad (5),$$

where *i* is equal to different components for each executives' compensation package for firm *j* at year *t*. Family positions are indicator variables equal to 1 if , for example, the CEO is a family member and 0 otherwise. It is expected that family executives will extract more resources from the firms they control and therefore, executive compensation will be higher for family members relative to non-family executives.

I will estimate equation (6) below to examine the difference in executive compensation for family members in dual class firms as compared to family executives in single class firms (H2b) in a sub-sample of family executives only. I expect dual class family executives to extract resources in the form of higher executive compensation relative to family executives in single class firms. To test this prediction, I interact dual class family executive positions and management voting leverage. The coefficients of interaction terms are expected to be positive and significant for various executive positions since greater voting power relative to cash flow stake in family firms can exacerbate the agency conflict between controlling shareholders and minority shareholders. I also include management voting leverage as a separate control variable to make sure that the interaction term does not merely pick up the effect of management voting leverage itself.

$$Ln(Compensation)_{i,j,t} = \alpha_i + \sum_{k=1}^{6} \varphi_{i,k}(DFam.Execu_{k,j} \times Mgmt.Vote_{j,t-1}) + \phi_i Mgmt.Vote_{j,t-1} + \sum_{k=1}^{5} \eta_{i,k} Firm\ Characteristics_{k,j,t-1} + \sum_{k=1}^{6} \delta_{i,k} Governance_{k,j,t-1} + \sum_{k=1}^{6} \gamma_{i,k} Position_{k,j} + \varepsilon_{i,j,t} \quad (6),$$

where DFam.Execu. is an indicator variable equal to 1 for the k^{th} family executive position in the j^{th} dual class firm and zero otherwise.

4.1.3 Dual Class Discount and Corporate Cash Holdings

In order to test the effects of excess corporate cash holdings on the valuation discount of dual class companies, I estimate the following equation:

$$Dual\ Class\ Discount_{j,t+1} = \alpha + \beta_1 (Excess\ Cash \times Mgmt.Vote)_{j,t} + \beta_2 Mgmt.Vote_{j,t} + \beta_3 Excess\ Cash_{j,t} + \beta_4 Financial\ Leverage_{j,t} + \beta_5 Conversion\ Right_{j,t} + \beta_6\ Size_{j,t} + \beta_7 Div.diff_{j,t} + \varepsilon_{j,t} \quad (7)$$

There are two measures of dual class discount. In the first measure, dual class discount is the difference between Tobin's Q ratio for a dual class firm and Tobin's Q ratio for a matching single class concentrated control firm.[32] The second measure of dual class

[32] In order to estimate Tobin's Q ratio, I follow the approach used by Lins (2003) where $Q = \left(\frac{Market\ Value\ of\ Equity + Total\ Assets - Book\ Value\ of\ Equity}{Total\ Assets} \right)$. Gompers et al. (2010 used a similar definition except they subtract deferred taxes from the numerator. In order to calculate the market value equity of the dual class companies, I follow Smith et al. (2009). For dual class companies with both classes of shares trading, the market value equity is the sum of the market value of the restricted voting class plus the superior voting class. For companies with only the restricted voting class shares trading, I add a premium to the price of

discount is the difference in the Q ratio of dual class firms and their SIC industry average Q ratio. Excess cash is defined as $\left(\frac{\Delta cash_{i,t}}{Total\ assets_{t-1}}\right)_{Dual\ class} - \left(\frac{\Delta cash_{i,t}}{Total\ assets_{t-1}}\right)_{Single\ class}$ where the change in corporate cash holdings is cash and marketable securities at the end of year t minus cash and marketable securities at the end of year t-1. To test whether the divergence between voting and cash flow rights along with excess cash holdings affect dual class discount, I interact management voting leverage and excess cash and include the interaction term as an explanatory variable. The coefficient of the interaction term is expected to be negative and significant, since excess control rights relative to equity stake can lead to inefficient use of corporate cash holdings. Management voting leverage (Mgmt. vote) is expected to be negatively related to the dual class discount. This represents agency problems associated with dual class ownership structure. Therefore, the greater the divergence between voting and cash flow rights, the larger the discount. Following Zingales (1995), conversion right is an indicator variable equal to 1 if superior voting shares can be converted into restricted voting shares and 0 otherwise, market value of equity (size) is used as a proxy for the probability of acquisition and dividend difference (Div. diff) is an indicator variable equal to 1 if the dividend paid or payable to restricted voting shares is greater than that of the superior voting shares and zero otherwise.[33]

---

the restricted voting shares in order to estimate the market value of equity for the superior voting shares. I use 6.5% as the voting premium which was established by Zingales (1995). There has been some debate on the measurement error of Tobin's Q ratio as a proxy for "true" Q (See Whited, 2001, Erickson and Whited 2002 and Erickson and Whited 2006). Erickson and Whited (2006) argue that the measurement error of Q becomes an issue depending on the use of Q in a regression. If a proxy for Q is used as a regressor to control for the incentive to invest, then the measurement error is a serious problem. However, if proxy appears as the dependent variable in a regression, then the measurement error does not bias any slope coefficient. It does, however make the R^2 smaller than in the absence of such error.

[33] In 13.5% of the dual class firms, holders of restricted voting (RV) shares are paid more or will receive more dividends in the future relative to holders of superior voting (SV) shares.

4.1.4 Dual Class Discount and Capital Expenditure

In order to test the effects of capital expenditure on the valuation discount of dual class companies, I estimate the following equation:

$$\begin{aligned} Dual\ Class\ Discount_{J,t+1} = {} & \alpha + \beta_1 (Capex \times Mgmt.Vote)_{J,t} + \beta_2 Mgmt.Vote_{J,t} + \beta_3 Capex_{J,t} \\ & + \beta_4 Financial\ \ Leverage_{J,t} + \beta_5 Conversion\ Right_{J,t} + \beta_6\ Size_{J,t} \\ & + \beta_7 Div.\ diff_{J,t} + \varepsilon_{J,t} \end{aligned} \quad (8),$$

where capital expenditure (Capex) is defined as:

$$\left(\frac{\Delta Capex_{t,t}}{Market\ value\ of\ equity_{t-1}}\right)_{Dual\ class} - \left(\frac{\Delta Capex_{t,t}}{Market\ value\ of\ equity_{t-1}}\right)_{Single\ class}$$

and the change in Capex is capital expenditure at the end of year *t* minus capital expenditure at the end of year *t-1*. The interaction term between capital expenditure (Capex) and management voting leverage (Mgmt.Vote) is expected to be negative. This implies that excess capital expenditure increases the dual class discount.

4.1.5 Dual Class Discount and Excess Compensation

Finally, I examine the effects of excess compensation on valuation discount of dual class firms (H3b). Following Zingales (1995) and Masulis et al. (2009), I estimate equation (9) using firm characteristics and governance variables that have been proven to explain executive compensation and extract the residuals as a measure of excess compensation. This excess compensation is used to explain the valuation discount in equation (10).

$$Ln(Compensation)_{i,j,t} = \alpha_i + \sum_{k=1}^{5} \eta_{i,k} Firm\ Characteristics_{k,j,t-1} + \sum_{k=1}^{6} \delta_{i,k} Governance_{k,j,t-1} + \sum_{k=1}^{6} \gamma_{i,k} Position_{k,j} + \varepsilon_{i,j,t} \quad (9),$$

where *i* is equal to different components of the executive compensation package for firm *j* at year *t*.

$$Dual\ Class\ Discount_{j,t+1} = \alpha + \beta_1 Excess\ Comp._{j,t} + \beta_2 (Mgmt.Vote \times Excess\ Cash)_{j,t} + \beta_3 Mgmt.Vote_{j,t} + \beta_4 Excess\ Cash_{j,t} + \beta_5 Financial\ Leverage_{j,t} + \beta_6 Conversion\ Right_{j,t} + \beta_7\ Size_{j,t} + \beta_8 Div.diff_{j,t} + \sum_{k=1}^{6} \gamma_k Position_{k,j} + \varepsilon_{j,t} \quad (10),$$

where *excess comp.* is residual from equation (9) for total compensation and the various components of executives' pay package such as salary, bonuses, stock options and other compensation.

After accounting for excess corporate cash holdings, management voting leverage and other control variables, I expect a higher excess compensation (*Excess Comp.*) to be associated with a larger valuation discount of dual class companies. The discount reflects investors' belief that executives of dual class companies are extracting private benefits of control through excess compensation. Thus excess compensation is expected to be negatively related to dual class discount after controlling for factors that partially explain dual class discount in the prior literature. Management voting leverage and the interaction term between management voting leverage and excess cash are expected to be negatively related to dual class discount.

4.2 Data

4.2.1 Sample Construction

The dataset used in this research is constructed from a variety of sources. To construct a sample of U.S. dual class firms, I retrieved a list of firms with dual class share structure from Corporate Library for 2005-2007. Corporate Library identifies all firms with dual class common shares as a takeover defense mechanism during the period. I extend this list of dual class firms to 2001 using a list of dual class IPOs and a list of dual class firms used in Gompers et al. (2010).[34] The list of 1,910 dual class firms over the period of 2001-2007 is merged with Execucomp database to determine whether compensation data is available for these firms. Execucomp database contains executive compensation data for the top executives representing the S&P 1500 group of companies. For each dual class company with compensation data, I retrieve proxy statements from the Securities and Exchange Commission (SEC) website and check the proxy statement for each firm in the sample to ensure that they are in fact, dual class companies. Next, using proxy statements, I collect voting rights per share and the number of superior voting and restricted voting shares owned by the largest shareholders and management and directors as a group.

For each firm, I collect accounting data from Compustat. I retrieve annual firm-level information such as total assets, sales, long-term debt, common equity and operating income. In addition, I collect several governance variables and equity ownership data from Corporate Library and Execucomp. These include the number of directors, outside related directors and unrelated directors. I use proxy statements, firm websites and internet search

[34] A list of dual class IPO is available on Jay Ritter's IPO website. Andrew Metrick generously provided the list of dual class companies used in their study.

engines such as Lexus Nexus and Google to identify family executives and family directors. I then calculate the percentage of family members who are directors of the board. In order to complete the set of control variables, I collect stock return data from CRSP. I obtain monthly returns to estimate beta and annual returns to compute standard deviation. Finally, I collect compensation information for all executives available on Execucomp. Total Compensation (TDC1) is defined as:[35]

$$Total\ Compensation = Salary + Bonuses + Other\ Compensation + Stock\ Options \quad (11),$$

where other compensation includes the value of restricted stock grants, long term incentive payouts, contributions to defined pension plans, life insurance premiums, consulting fees and awards under charitable award programs.

4.2.2 Propensity Score Matching

The list of dual class companies is matched with a list of single class concentrated control firms using propensity score matching. Propensity score matching methods were developed in Rosenbaum and Rubin (1983), Heckman and Robb (1986) and Heckman et al. (1998). Propensity score matching has become a popular matching technique applied to studies of the financial markets (see Hillion and Vermaelen, 2004 and Villalonga, 2004) which allows for matching using a larger number of characteristics and hence, reducing or eliminating potential bias. The greater the overlap in all characteristics of the treated and

[35] The Execucomp database value of executive stock options using Black-Scholes call option valuation model (1973). Alternatively, Johnson, Ryan and Tian (2009) adopt a modified version of the Black-Scholes model to compute the option values because executives typically exercise their options before maturity. Therefore, they reduce the contractual option maturity by 30%.

control groups, the more comparable the groups are and the smaller the bias (Heckman et al., 1997 and Heckman et al., 1998).

Using a propensity score algorithm, I estimate a probit model of the determinants of dual class structure and compute a propensity score for each firm based on several firm and governance characteristics. The propensity score is then used to match each dual class firm with a similar single class company. The following firm and governance characteristics are used in the matching exercise: equity ownership of the largest shareholder, sales, industry, return on asset, annual stock return, beta, standard deviation of annual returns, market-to-book, debt-to-asset, sales growth, board size, proportion of independent directors, busy directors, grey directors, institutional ownership, company age, R&D-to-sales and capex-to-total asset. This matching exercise results in a final sample of 792 dual class firm-years over the period of 2001-2007. This represents an average of 113 dual class firms per year. The final matched sample is made up of 1,584 firm-year observations and 7,920 executive-firm-year observations.

5.0 Results

5.1.0 Descriptive Statistics

Table 1 contains descriptive statistics of executive compensation. Panel A shows that on average, dual class executives received $2.6 million of total compensation compared to $2.3 million of total compensation for a similar executive in a single class concentrated control firm. The test of mean (median) difference between dual and single class executives is positive and statistically significant at the 5% level. In terms of salary and bonuses, dual

class executives are paid more than single class concentrated control executives. Univariate tests for the difference in mean (median) show that salary and bonuses are significantly higher for dual class executives (Panel A, Table 1). The CEOs, COOs and VPs of dual class firms receive significantly higher salary, bonuses and total compensation relative to the matching group of executives (Panels B, D and E). However, there is no difference in total compensation for CFOs (Panel C, Table 1). For example, Panel B Table 1, shows that dual class CEOs and presidents receive an average of $5.2 million of total compensation compared to matching single class concentrated control CEOs with $4.7 million in total compensation. The univariate test for difference in mean (median) for CEO total compensation is positive and significant at the 5% level.

Compared to single class firms, COOs and VPs in dual class firms received $287.35 thousand and $122.98 thousand more in total compensation, respectively (Panel D and E, Table 1). The test for difference in mean (median) is positive and significant for salary, bonuses and total compensation for both COOs and VPs. Figure 1 shows the median total compensation for the top three executives over the period 2001-2007. The graph indicates that the top three highest paid executives in dual class firms receive more compensation compared to similar top three executives in single class concentrated control firms.

In terms of family executives, family CEOs and Chairmen in dual class firms are paid more total compensation ($2.9 million) compared to family CEOs and Chairmen in matching single class firms (Panel F, Table 1). A family member who is the CEO but not the Chairman of the board also earns significantly more salary, bonuses and total compensation compared to a similar family CEO in a single class company (Panel G, Table 1). Finally, family CEOs in general received higher compensation than non-family CEOs

(Panel H, Table 1). In fact, family CEOs received 24.6% more in total compensation to similar non-family CEOs.

In terms of the industry distribution of dual class firms, Table 2 provides descriptive statistics based on SIC industry codes. The sample of dual class firms in this essay is generally distributed across all industries. However, business services, communication, retail services, food and kinder products, printing and publishing and electronic equipment are the six industries with the greatest number of dual class firms over the period of 2001-2007.

Table 3 shows descriptive statistics of firm characteristics, governance and executive characteristics. Panel A summarizes governance characteristics for the sample. In most dual class firms the family, founder or management as a group, controls a significant proportion of the voting rights. The mean (median) cash flow ownership by the largest shareholders is 22.5% (18.2%) compared to 23.6% (19.2%) for similar single class companies. In terms of the voting rights, the largest shareholder controls on average, 57.8% of the voting rights. As a group, management and directors in dual class companies, on average control 58.3% of the votes and only 24.9% of the cash flow rights. This represents a significant divergence between their voting and cash flow rights. As a result of this divergence, institutional investors are less likely to hold a significant proportion of dual class restricted voting shares. According to Li et al. (2008), voting rights are an important determinant of institutional investment decisions. This argument is consistent with the finding that institutional investors hold significantly fewer shares in dual class firms (16.9%) compared to single class firms (21.5%).

Univariate tests show that dual class firms have, on average, significantly less independent directors (59.3%) but significantly more busy directors (16.6%) compared to a group of matching single class concentrated control firms (68.8% and 13.0%, respectively). Also, dual class firms have more grey directors. In fact, 10.2% of the board is made up of outside related directors (grey directors) compared to 9.9% in single class concentrated control firms. In addition, a large percentage of dual class firms in the sample are considered as family firms. In fact, 83.2% of dual class firms are family firms compared to only 31.4% of the single class concentrated control firms. This implies that family influence is greater in dual class companies. The univariate test shows that a greater percentage of family members in dual class companies are directors (15.8%) relative to single class firms (5.6%) with the difference in mean and median being positive and statistically significant.

Table 3, Panel B reports the descriptive statistics for firm characteristics. In terms of the valuation discount, measured by Tobin's Q ratio, dual class companies have a lower value compared to a group of matching single class concentrated control companies. This is consistent with the findings of prior studies such as King and Santor (2008), Gompers et al. (2010), and Smith et al. (2009). The test for mean (median) difference is negative and statistically significant at the 1% level. Using median Q ratio, there is a 9.3% discount of dual class firms compared to single class companies. Figure 2 shows the average discount of restricted voting shares relative to superior voting for dual class companies with both classes of shares trading over the period of 1998-2007. The mean (median) discount over this period is 5.10% (5.98%). In terms of firm size, the univariate test indicates that there is no difference in the mean (median) size of dual class firms and their matching single class concentrated control counterpart (Table 3, Panel B). Measured by sales, the mean size of

dual class firms is $4.9 billion compared to $4.6 billion for single class concentrated control firms. Similarly, there is no difference between single class and dual class firms in terms of risk (standard deviation), growth, performance (ROA) and financial leverage (D/A). This implies that, based on firm characteristics, the propensity score matching produces a relatively good group of control firms.

5.2.0 Regression Analysis

5.2.1 Ownership Structure and Compensation

The relationship between executive compensation and ownership structure after accounting for firm characteristics and governance determinants of executive compensation is examined using fixed effects regression. The dependent variable includes various components of the executives' compensation package as well as total compensation (Execucomp item TDC1). The results are presented in Table 4. Under the identification assumption that variation in concentrated control is exogenous, the regression results are consistent with the prediction of hypothesis 1. Executives in dual class companies are paid significantly higher salaries, bonuses, other compensation, options and total compensation. The results provide evidence that dual class executives are using their voting power to extract resources from the firm at the expense of minority shareholders. This finding is consistent with the private benefits of control and the agency costs arguments. Management voting leverage is positive and significant for each component of compensation package as well as total compensation. This implies that the greater the voting power relative to cash flow ownership, the greater the excess compensation paid to dual class executives. The

positive relationship between management voting leverage and executive compensation for all senior level executives corroborates the findings of Masulis et al. (2009) for CEOs only.

Several firm characteristics are positive and significant which are consistent with previous research findings. As expected, performance is positively associated with total compensation and all components of executive compensation, except for salary.[36] Financial leverage is negative and significant for total compensation and stock options. The coefficient on size is positive and significant indicating that larger firms tend to pay their executives higher compensation. The evidence is consistent with the argument that compensation related to size, complexity and investment opportunities reflects a demand for higher quality executives (Core et al., 1999; and Chalmers et al., 2006). Firm risk, measured by standard deviation of returns, is positively associated with bonuses, stock options and total compensation. This implies that executives in more risky firms demand higher compensation. The evidence is consistent with Chalmers et al. (2006). Growth is positive and significant for total compensation which is primarily driven by bonuses and stock options. This implies that firms with growth options tend to compensate their executives with more incentive based compensation compared to fixed salaries.

Table 4 also presents results for several governance variables that have been proven to explain executive compensation. Larger boards (number of directors) lead to higher compensation. This evidence suggests that larger boards are less effective in reducing excess compensation. This is consistent with prior studies such as Core et al. (1999). In theory, a greater percentage of independent directors should result in lower executive compensation because independent directors are expected to be better monitors. However, the coefficient

[36] I replaced ROA as a measure of performance with annual stock returns and the results are qualitatively similar.

on independent directors is positive indicating that a greater percentage of independent directors leads to higher executive compensation. The greater the percentage of busy or grey directors, the higher the executive compensation. The evidence suggests that boards with a high proportion of busy and grey directors are less effective in monitoring managers and acting in the interest of shareholders. Finally, the results presented in Table 4 indicate that the percentage of family directors on the board leads to lower executive compensation as predicted. However, the percentage of institutional ownership does not influence executive compensation.

5.2.2 Family Executives and Compensation

Table 5 presents the results for various family executives after controlling for management voting leverage, firm characteristics and several governance variables that explain executive compensation. Being family members in executive positions in both dual class and single class concentrated control firms has a positive impact on executive compensation. The coefficient on family CEOs and chairmen is positive and significant indicating that family members performing the dual role of CEO and chairman received significantly higher compensation. Family CEOs who are not the Chairmen also received higher total compensation. This evidence is consistent with the findings of Cheung et al. (2005), Basu et al. (2007) and Cohen and Lauterbach (2008). Family members in other executive positions earn significantly higher compensation compared to non-family executives in similar positions. Family Chairmen, CFOs and COOs received significantly higher total compensation compared to non-family executives in similar positions.

Table 6 presents regression results for a sub-sample of family executives only in both dual and single class concentrated control firms. Examining compensation of dual class family executives compared to single class family executives, total compensation as well as various components of executive compensation are regressed on several interaction variables along with firm characteristics and governance determinants of executive compensation. As predicted, dual class family executives received significantly higher compensation compared to family executives in similar positions in single class concentrated control firms, except for dual class family VPs. This provides additional support for the extraction of private benefits of control and the agency cost arguments. In terms of the various components of the compensation package, dual class family executives seem to be extracting private benefits in the form of higher salaries and other compensation.

5.2.3 Dual Class Discount and Corporate Cash Holdings

Dual class firms, on average, retain more cash compared to single class companies with concentrated control. The mean (median) cash holdings for dual class companies is $642.3 million ($166.0 million) compared to $431.0 million ($132.8 million) for single class concentrated control firms (Table 3, Panel B). The univariate test for the difference in mean (median) is positive and significant at the 1% level. The change in cash, year *t-1* to year *t*, is larger in dual class companies compared to single class concentrated control companies. This implies that managers in dual class companies are retaining excess cash which can be

used to provide private benefits. In addition, the mean (median) excess cash holdings, scaled by total assets, is 2.4% (0.35%) and the mean is statistically significant at the 5% level.[37]

Table 7 provides evidence which links the discount of dual class companies to the managerial extraction of private benefits of control. I estimate equation (7) and present the results in Table 7. In models (1) and (2) the dependent variable, dual discount, is the difference between Q ratio for dual class firms and matching single class concentrated control firms. In columns (3) and (4), the dual class discount is computed as the difference between dual class firms and their respective SIC industry average Q ratio. Using both measures of discount, I find that the interaction term between excess cash holdings and management voting leverage is negative and significant after controlling for excess cash, management voting leverage and other control variables. The result is consistent with the argument that when managers control a significant proportion of votes relative to equity ownership, excess corporate cash holdings is more likely to be diverted to provide private benefits and thus investors discount the value of dual class companies. The findings imply that investors view excess cash in dual class companies as a potential avenue for the extraction of private benefits. Therefore, excess cash exacerbates the agency conflict between controlling shareholders and managers and minority shareholders. For the control variables, the signs are generally consistent with those reported in the literature. For example, the difference in dividends paid or payable to restricted shareholders is positive and significant when dual class discount is measured using average industry Q ratio.

---

[37] Excess cash is defined as: $\left(\frac{\Delta\, cash_{i,t}}{Total\ assets_{t-1}}\right)_{Dual\ class} - \left(\frac{\Delta\, cash_{i,t}}{Total\ assets_{t-1}}\right)_{Single\ class}$ where the change in corporate cash holdings is cash and marketable securities at the end of year t minus cash and marketable securities at the end of year t-1.

5.2.4 Dual Class Discount and Capital Expenditure

Univariate tests indicate that dual class firms undertake more capital investments compared to single class closely-held companies. The mean (median) capital expenditure for dual class firms is $256.5 million ($65.5 million) relative to $138.3 million ($46.5 million) for single class concentrated control companies (Table 3, Panel B). Given the size of the capital expenditure for dual class companies, one would suspect that capital expenditure is a channel through which managers and controlling shareholders can extract private benefits. However, the multivariate test does not support this view. Table 8 reports the results of estimating the impact of capital expenditure on both measures of dual class discount. The results indicate that after controlling for management voting leverage and other factors, capital expenditure does not affect dual class discounts. This implies that investors do not view capital expenditure as an avenue through which controlling shareholders and managers extract private benefits. One possible explanation is that it is difficult to disentangle the effects of real long-term investments and potential extraction of private benefits through the use of capital expenditure on firm value. Alternatively, capital expenditure may not be an avenue to extract private benefits due to its importance as capital investment for corporate growth.

5.2.5 Dual Class Discount and Excess Compensation

To test the rational investor hypothesis explaining dual class discount firms using excess compensation, I estimate equation (9) and obtain the excess compensation. I then estimate equation (10) and the results are presented in Table 9. The results indicate that after

controlling for excess corporate cash holdings, the higher the excess total compensation, the larger the valuation discount of dual class companies (Panel A, Table 9, Column V). Also, various components of the compensation package such as excess salary, bonuses and other compensation result in a greater discount of dual class companies. We can argue that investors believe that executive compensation is a channel through which controlling shareholders' and managers' can extract private benefits. The interaction term between excess cash and management voting leverage is negative and significant. This confirms the rational investor hypothesis that investors expect executives in dual class firms to use their control to extract resources for the firms they control. Therefore, investors, in turn, discount the value of dual class firms. The control variables corroborate prior findings. Size is positive and significant which is consistent with prior studies, such as that of Zingales (1995).

In column VI (Panel A, Table 9), I examine the relationship between family executives' excess compensation and dual class discount. Excess compensation paid to family CEOs (CEO only and CEO and Chairman) in dual class companies leads to an increase in the valuation discount of dual class firms. This is consistent with the evidence provided by King and Santor (2008).

In Panel B, Table 9, the dual discount is computed using the industry average Q ratio. The results for total compensation, salary and other compensation are similar to the results reported in Panel A, Table 9. As for dual class family excess total compensation, excess compensation to family CEOs results in a larger dual class discount.

5.3 Endogeneity

5.3.1 Simultaneity and Two-Stage Least Square Estimation

The identification assumption crucial to the causal interpretation of the findings above is that the variation in management voting leverage is unrelated to unobserved factors which influence executive compensation. This assumption is motivated by the observation that ownership structure is established at the IPO stage or earlier in the firm's life cycle. However, there are occasions where dual class ownership and control structure is established long after IPO. Therefore, it is possible that some unobserved factors correlate with changes in control structures that affect executive compensation. Therefore, the regression estimates in Tables 4-6 are likely to be biased and inconsistent due to simultaneity. In order to address the potential simultaneous process determining executive compensation and ownership structure or omitted variable bias, a two stage least square estimation technique is utilized. Executive ownership can influence the level of executive compensation, while executive compensation, especially stock options, can influence their ownership level. As a result, the following specification will be jointly estimated with equation (13):

$$Mgmt.Vote_{j,t} = \alpha + \psi_1 Ln(Compensation)._{t,j,t} + \psi_2 Beta + \psi_3 Lev._t + \psi_4 Q_t + \psi_5 Name + \psi_6 Media + \psi_7 Size_t + \varepsilon_{j,t} \quad (12),$$

where management voting leverage, compensation, financial leverage (Lev.) and size are defined in Table 1A, Appendix A. Beta is estimated using the previous 5 years of monthly

returns. Q is the Tobin's Q ratio.[38] Name is a binary variable equal to 1 if the firm name is the same as an individual's name. Media is a dummy variable equal to 1 if the firm is in the media industry.[39]

$$Ln(Compensation)_{i,j,t} = \alpha_i + \phi_i \, Pred.Mgmt.Vote_{j,t} + \sum_{k=1}^{5} \eta_{i,k} Firm\ Characteristics_{k,j,t-1} + \sum_{k=1}^{6} \delta_{i,k} Governance_{k,j,t-1} + \sum_{k=1}^{6} \gamma_{i,k} Position_{k,j} + \varepsilon_{i,j,t} \quad (13),$$

where Pred.Mgmt.Vote is the predicted management voting leverage from equation (12) above.

The results of the second stage regression are presented in Table 10. Column I shows the estimates for equation (13) for total compensation. Predicted management voting leverage is positive and significant indicating that executives are using their voting power to extract higher compensation. Column II presents results for a modified version of equation (13) which includes family executive indicator variables. The results are similar to those presented in Table 5. Finally, column III reports the second stage results for a sub-sample of family executives only. Dual class family executives received significantly higher total compensation, except for family VPs in dual class firms.

[38] I used leverage, size, beta and Tobin's Q as determinants of management voting leverage following Lins (2003) and Smith et al., (2009).

[39] A firm is defined as a media firm if it belongs to SIC codes 2710-11, 2720-21, 2730-31, 4830, 4832-33, 4840-41, 7810, 7812 and 7820. Gompers et al., (2010) show that name and media variables are important predictors of dual class ownership structure. Therefore, I include a name and media variable in estimating equation (12).

5.3.2 Heckman Sample Selection

It is possible that dual class firms self-select this type of ownership structure and therefore, we have to account for the sample selection bias. Using the Heckman (1979) two-stage estimation procedure, I account for the potential bias due to self-selection. In the first stage, I estimate a probit model with the dependent variable equal to 1 if the firm is a dual class firm and 0 otherwise. Several of the independent variables used in determining dual class status are based on prior studies such as Gompers et al. (2010). Using the estimated parameters from the probit model, I compute the inverse Mills ratio which is included as an additional explanatory variable in the pool regression. The results of the Heckman second-stage estimation are presented in Table 11. The results are similar to those presented in Tables 4-6. The inverse Mills ratio is not significant indicating that sample self-selection bias does not affect the results.

5.3.3 Robustness Check

It is often argued in the literature that equity ownership by executives tends to have an impact on their compensation. Executives having a significant ownership stake in the firm they manage are less likely to extract excess compensation. As a result, I include percentage of equity ownership as an additional explanatory variable. The percentage of equity ownership is negative and significant at the 5% level (Table 12). This corroborates evidence from prior studies (Core et al., 1999 and Chalmers et al., 2006). However, management voting leverage is still positive and significant at the 1% level after controlling for the percentage of equity ownership by each executive, governance variables and firm characteristics. In addition, the literature on CEO compensation often argues that a CEO's

age is a positive determinant of CEO compensation. Therefore, I include executives' age as a control variable and re-estimate equations 4-6 above. The coefficient on the age variable is not statistically significant (Table 12).

I also re-examined the valuation discount of dual class firms using only those with both classes of shares trading on the exchange. There are 18 dual class firms (126 firm-year observations) that have both classes of shares trading in the sample. The regression results (not reported) are qualitatively similar to those presented in Tables 7 and 8.

6.0 Chapter Summary and Conclusions

A long standing concern regarding concentrated ownership and control is that it creates agency problems and also leads to the extraction of private benefits and agency costs, especially in dual class firms where there is the separation of voting and cash flow rights. In addition, the channels through which controlling shareholders and managers can extract private benefits have not been well documented in the literature. Of particular interest is the relationship between these channels and the observed valuation discount of dual class companies compared to single class concentrated control companies. Using Q ratio as a measure of value, I show that there is a significant difference in the valuation between dual and single class companies. Using mean (median) Q ratio, there is an 8.33 % (9.3%) discount of dual class firms relative to matching single class companies.

Using a sample of 1584 dual and single class concentrated control companies over the period 2001-2007 from the S&P 1500 group of companies and utilizing panel regression techniques with industry and year fixed effects, this essay provides empirical evidence showing a direct link between dual class discount and excess compensation and excess cash.

However, capital expenditure does not explain the dual class discount. Therefore, the channels of wealth expropriation are excess compensation in general, excess compensation for family members, and excess corporate cash holdings. The degree of excess compensation is greatest in dual class companies with executives who are family members.

This essay tests the effects of two different ownership structures with different forms of concentrated control using a sample of U.S firms. In the first ownership structure, concentrated control is obtained via majority voting rights (dual class ownership structure). In the second sample, control occurs through significant equity ownership (single class concentrated control firms). The tests indicate that executives in dual class companies earn significantly higher compensation compared to executives in similar single class companies. The results also show that family CEOs in dual class companies receive higher compensation compared to family CEOs in single class concentrated control companies. Family CEOs, in general, are paid more compensation relative to non-family CEOs. I conducted a series of robustness checks and corrections of potential endogeneity due to simultaneity and self-selection biases. Using two-stage least square and Heckman sample selection specification, the results are robust to potential endogeneity biases. Also, I re-run the analysis with "wedge" instead of management voting leverage. In addition, I include executives' age and equity ownership and the results remain qualitatively the same.

Using the valuation discount of dual class firms, I provide evidence of private benefits of control by relating excess compensation to the dual class discount. In particular, excess total compensation paid to dual class family CEOs increases the dual class discount. In addition, excess cash holdings lead to a larger valuation discount of dual class companies relative to single class concentrated control firms. This is consistent with the belief that

managers can misuse corporate cash holdings in the pursuit of private benefits and as a result, investors discount the value of dual class companies. Additional tests indicated that capital expenditure is not a channel for the expropriation of shareholders' wealth in dual class companies. Consistent with Masulis et al. (2009), the two channels of extraction of private benefits from dual class companies are executive compensation and cash holdings.

In summary, the evidence supports the agency cost argument that dual class controlling shareholders and managers use their control to extract private benefits from the firm at the expense of minority shareholders. Thus, investors are aware of this perquisite consumption and discount the value of these companies, accordingly.

7.0 References

Anderson, R., and Reeb, D. M., (2003), Founding-family ownership and firm performance: Evidence from the S&P 500, *Journal of Finance*, 58, 1301-1329

Basu, S., Hwang, L., Mitsudome, T., and Weintrop, J., (2007), Corporate governance, top executive compensation and firms performance in Japan, *Pacific-Basin Finance Journal*, 15, 56-79

Black F., and Scholes, M., (1973), The pricing of options and corporate liabilities, *Journal of Political Economy*, 81, 637-654

Bebchuk, L.A., and Fried L. M., (2003), Executive compensation as an agency problem, *Journal of Economics Perspectives*, 17, 71-92

Bebchuk, L. A., Fried, L. M., and Walker, D. I., (2002), Managerial power and rent extraction in design of executive compensation, *The University of Chicago Law Review*, 69, 751-846

Chalmers, K., Koh, P., and Stapledon, G., (2006), The determinants of CEO compensation: Rent extraction or labour demand?, *The British Accounting Review*, 38, 259-275

Cheng, S., and Firth, M., (2006), Family ownership, corporate governance and top executive compensation, *Managerial and Decision Economics,* 27, 549-561

Cheung, Y., Stouraitis, A., and Wong, A.W. S., (2005), Ownership concentration and executive compensation in closely held firms: Evidence from Hong Kong, *Journal of Empirical Finance*, 12, 511-532

Chung, K. H., and Pruitt, S. W., (1996), Executive ownership, corporate value and executive compensation: A unifying framework, *Journal of Banking and Finance*, 20,1135-1159

Claessens, S., Djankov, S., and Lang, L. H. P., (2000), The separation of ownership and control in East Asian corporations, *Journal of Financial Economics*, 58, 81-112

Cohen, S., and Lauterbach, B., (2008), Difference in pay between owner and non-owner CEOs: Evidence from Israel, *Journal of Multinational Financial Management*, 18, 4-15

Core, J. E., and Larcker, D.F., (2002), Performance consequences of mandatory increases in executive stock ownership, *Journal of Finance Economics*, 64, 317-340.

Core, J. E., Holthausen, R.W., and Larcker, D.F., (1999), Corporate governance, chief executive officer compensation and firm performance, *Journal of Financial Economics*, 51, 371-406

Core, J. E., Guay, W.R., and Larcker D.F., (2003), Executive equity compensation and incentives: A survey, *Economic Policy Review*, April, 27-50

DeAngelo, H., and DeAngelo, L., (1985), Managerial ownership of voting rights: A study of public corporations with dual classes of common stock, *Journal of Financial Economics*, 14, 33-69

Demsetz, H., and Lehn, K., (1985), The structure of corporate ownership: Causes and consequences, *Journal of Political Economy*, 93, 1155-1177

Denis, D. K, (2001), Twenty-five years of corporate governance research and counting, *Review of Financial Economics*, 10, 191-212

Dittmar, A., and Mahrt-Smith, J., (2007), Corporate governance and the value of cash holdings, *Journal of Financial Economics*, 83, 599-634

Doidge, C., (2004), U.S. cross-listing and private benefits of control: Evidence from dual-class firms, *Journal of Financial Economics,* 72,519-553

Dyl, E. A., (1988), Corporate control and management compensation: Evidence on the agency problem, *Managerial and Decision Economics*, 9, 21-25

Erickson, T., and Whited, T.M., (2002), Measurement error and the relationship between investment and Q, *Journal of Political Economy*, 108, 1027-1057

Erickson, T., and Whited, T. M., (2006), On the accuracy of different measures of Q, *Financial Management*, 35, 5-33

Fama, E., and Jensen, M., (1983), Separation of ownership and control, *Journal of Law and Economics*, 26, 301-325

Goldberg, L. G., and Idson, T. L., (1995), Executive compensation and agency effects, *The Financial Review*,30, 313-335

Gomez-Mejia, L., Tosi, H., and Hinkin, T., (1987), Managerial control, performance and executive compensation, *Academy of Management Journal*, 30, 51-70

Gomez-Mejia, L. R., Larraza-Kintana, M., and Makri, M., (2003), The determinations of executive compensation in family-controlled public corporations, *Academy of Management Journal*, 46, 226-237

Gompers, P.A., Ishii, J. and Metrick, A., (2010), Extreme governance: An analysis of dual-class firms in the United States, *Review of Financial Studies,* 23, 1051-1088

Grossman, S., and Hart, O., (1988), One share-one vote and the market for corporate control, *Journal of Financial Economics*, 20, 175-202

Haid, A., and Yurtoglu, B., (2006), Ownership structure and executive compensation in Germany, Available at SSRN: http://ssrn.com/abstract=948926

Hambrick, D.C., and Finkelstein, S., (1995), The effects of ownership structure on conditions at the top: The case of CEO pay raises, *Strategic Management Journal*, 16, 175-193

Harford, J., (1999), Corporate cash reserve and acquisitions, *Journal of Finance*, 54, 1969-1997

Harford, J., Mansi, S. A., and Maxwell, W. F., (2008), Corporate governance and firm cash holdings in the U.S., *Journal of Financial Economics*, 87, 535-555

Hartzell, J.C., and Starks, L. T., (2003), Institutional investors and executive compensation, *Journal of Finance*, 58, 2351-2374

Heckman, J., (1979), Sample selection bias as a specification error, *Econometrica*, 47, 153-161

Heckman, J., Ichimura, H., Smith, J., and Todd P., (1998), Characterizing selection bias using experimental data, *Econometrica*, 66, 1017-1098

Heckman, J., Ichimura, H., and Todd P., (1997), Matching as an econometric evaluation estimator: Evidence from evaluating a job training programme, *Review of Economic Studies,* 64, 605-654

Heckman, J., and Robb R., (1986), Alternative methods for solving the problem of selection bias in evaluating the impact of treatments on outcomes. *Drawing Inference from Self-Selected Samples,* ed. H. Wainer. Berlin: Springer-Verlag

Hillion, P., and Vermaelen, T., (2004), Death spiral convertibles, *Journal of Financial Economics*, 71 381–415

Holderness, C. G., (2003), A survey of blockholders and corporate control, *Economic Policy Review*, April 2003, 51-64

Holderness, C. G., and Sheehan, D. P., (1988), The role of majority shareholders in publicly held corporations: An exploratory analysis, *Journal of Financial Economics,* 20, 317-346

Horner, M., (1988), The value of the corporate voting right: Evidence from Switzerland, *Journal of Banking and Finance*, 12, 69-83

Jensen, M. C., (1986), Agency costs of free cash flow, corporate finance and takeovers, *American Economic Review*, 76, 323-329

Jensen, M. C., and Murphy, K. J., (1990), Performance pay and top-management incentives, *Journal of Political Economy*, 98, 225-264

Johnson, S. A., Ryan, H. E., and Tian, Y. S., (2009), Managerial incentive and corporate fraud: The sources of incentives matter, Review of Finance, 13, 115-145

Kalcheva, I., and Lins, K. V., (2007), International evidence on cash holdings and expected managerial agency problems, *Review of Financial Studies,* 20, 1087-1112

Kim, K. A., and Nofsinger, J. R.., (2004), Corporate governance. New Jersey: Pearson-Prentice Hall

King, M., and Santor, E., (2008), Family values: Ownership structure, performance and capital structure of Canadian firms, *Journal of Banking and Finance*, 32, 2423-2432

La Porta, R., Lopez-de-Silanes, F., and Shleifer, A., (1999), Corporate ownership around the world, *Journal of Finance*, 54, 471-517

Lambert, R., Larcker, D., and Weigelt, K., (1993), The structure of organizational incentives, *Administrative Sciences Quarterly*, 38, 438-463

Lease, R. C., McConnell, J. J., and Mikkelson, W. H., (1983), The market value of control in publicly-traded corporations, *Journal of Financial Economics*, 11, 439-491

Levy, H., (1983), Economic evaluation of voting power of common stock, *The Journal of Finance*, 38, 79-93

Li, K., Ortiz-Molina, H., and Zhao, X., (2008), Do voting rights affect institutional investment decisions? Evidence from dual-class firms, *Financial Management,*37, 713-745

Lins, K. V., (2003), Equity ownership and firm value in emerging markets, *Journal of Financial and Quantitative Analysis*, 38, 159-84

Masulis, R. W., Wang, C., and Xie, F., (2009), Agency problems at dual-class companies, *Journal of Finance,* 64, 1697-1727

McConaughy, D., Walker, M., Henderson, G., and Mishra, C., (1998), Founding family controlled firms: Efficiency and value, *Review of Financial Economics*, 7, 1-19

McConaughy, D. L, (2000), Family CEOs Vs. non-family CEOs in family-controlled firms: An examination of the level and sensitivity of pay to performance, *Family Business Review*, 13, 121-132

McConnell, J. J., and Muscarella, C. J., (1985), Corporate capital expenditure decisions and the market value of the firm, *Journal of Financial Economics*, 14, 399-422

Megginson, W., (1990), Restricted voting stock, acquisition premiums and the market value of corporate control, *The Financial Review*, 25, 175-198

Mehran, D., (1995), Executive compensation structure, ownership and firm performance, *Journal of Financial Economics*, 38, 163-84

Murphy, K., (1999), Executive compensation, in O. Ashenfelter and D. Card (eds), Handbook of Labor Economics, 3, Amsterdam: North-Holland

Nenova, T., (2003), The value of corporate voting rights and controls: A cross-country analysis, *Journal of Financial Economics*, 68,325-357

Pinkowitz, L., Stulz, R., and Williamson, R., (2006), Does the contribution of corporate cash holdings and dividends to firm value depend on governance? A cross-country analysis, *Journal of Finance*, 61, 2725-2751

Rosenbaum, P., and Rubin. D., (1983) The Central Role of the Propensity Score in Observational Studies for Causal Effects, *Biometrika* 70, 41–55.

Rydqvist, K., (1992), Dual class shares: A review, *Oxford Review of Economic Policy*, 8, 45-57

Shleifer, A., and Vishny, R. W., (1986), Large shareholder and corporate control, *Journal of Political Economy*, 94, 461-488

Smith B. F., and Amoako-Adu, B., (1995), Relative Prices of Dual class Shares, *Journal of Financial and Quantitative Analysis*, 30, 223-239.

Smith B. F., and Amoako-Adu, B., (1999), Management succession and financial performance of family controlled firms, *Journal of Corporate Finance,* 5,341-368

Smith, B. F., Amoako-Adu, B., and Kalimipalli M., (2009), Concentrated control and corporate value: A comparative analysis of single and dual class structures in Canada, *Applied Financial Economics,* 19, 955-974

Smith, C. W., and Watts, R. L., (1992), The investment opportunity set and corporate financing, dividend and compensation policies, *Journal of Financial Economics*, 32, 263-292

Tinaikar, S., (2008), Voluntary disclosure and ownership structure: An analysis of dual class firms, *Working Paper, University of Florida*

Villalonga, B., (2004), Does diversification cause the "diversification discount"? *Financial Management*, 33, 5-27

Villalonga, B., and Amit, R., (2006), How do family ownership, control and management affect firm value?, *Journal of Financial Economics*, 80, 385-417

Villalonga, B., and Amit, R., (2009), How are family firms controlled?, *Review of Financial Studies,* 22, 3047-3091

Whited, T. M., (2001), Is it efficient investment that causes the diversification discount?, *Journal of Finance*, 56, 1667-1692

Zingales, L., (1994), The value of the voting right: A study of the Milan Stock Exchange experience, *Review of Financial Studies*, 7,125-148

Zingales, L., (1995), What determines the value of corporate votes? *The Quarterly Journal of Economics*, 110, 1047-1073

Table 1: Summary statistics of executive compensation (2001-2007)

Significance level at the 1%, 5% and 10% is indicated as *, **, and ***, respectively. Test for difference in mean is the t-test and test for difference in median is the Wilcoxon signed-rank.

Panel A: All Executives

($000)	Dual Class				Single Class				Test for difference in mean	Test for difference in median
	Mean	Median	Std. Dev.	Obs	Mean	Median	Std. Dev.	Obs		
Salary	503.41	400.48	449.61	3960	429.08	360.00	255.77	3960	9.01***	8.03***
Bonuses	468.76	150.00	1280.26	3960	330.60	135.65	808.52	3960	5.72***	3.27***
Other Compensation	126.64	19.64	646.37	3960	122.77	22.98	576.06	3960	0.28	-1.87*
Stock Options	1216.94	286.50	3349.62	3960	1214.37	388.85	2631.82	3960	0.04	-6.90***
Total Compensation	2597.74	1454.35	4588.05	3960	2319.55	1280.87	3639.96	3960	2.17**	2.08**

Panel B: President and Chief Executive Officer

($000)	Dual Class				Single Class				Test for difference in mean	Test for difference in median
	Mean	Median	Std. Dev.	Obs	Mean	Median	Std. Dev.	Obs		
Salary	779.79	690.30	617.36	819	685.33	650.00	318.20	808	3.87***	2.72***
Bonuses	1008.15	351.40	2276.79	819	624.52	283.85	1326.66	808	4.14***	2.48**
Other Compensation	221.68	47.23	994.37	819	199.27	46.97	651.05	808	1.95**	0.16
Stock Options	2500.67	750.41	5973.59	819	2577.54	1055.58	4387.90	808	-0.29	-3.84***
Total Compensation	5197.12	2828.54	6060.02	819	4743.65	2551.79	5180.89	808	2.18**	2.54**

Table 1 Cont'd

Panel C: Chief Financial Officer

	Dual Class				Single Class				Test for difference in mean	Test for difference in median
	Mean	Median	Std. Dev.	Obs	Mean	Median	Std. Dev.	Obs		
Salary	394.60	344.14	228.17	670	349.17	319.00	169.94	702	4.13***	3.61***
Bonuses	289.82	113.18	578.07	670	247.56	137.23	432.65	702	1.89*	-0.26
Other Compensation	76.12	17.26	326.41	670	84.40	19.79	431.17	702	-0.39	-1.10
Stock Options	866.08	276.21	1809.93	670	819.75	343.40	1484.91	702	0.26	-2.53**
Total Compensation	1775.06	1082.56	2389.54	670	1719.54	1071.70	2050.77	702	0.18	0.63

Panel D: Chief Operating Officer

	Dual Class				Single Class				Test of Mean difference	Test of Median difference
	Mean	Median	Std. Dev.	Obs	Mean	Median	Std. Dev.	Obs		
Salary	555.61	477.50	518.82	374	442.24	403.70	208.96	352	3.81***	3.63***
Bonuses	573.62	209.59	1406.42	374	359.47	163.90	906.01	352	2.42**	2.67***
Other Compensation	141.19	23.25	427.81	374	174.65	23.44	1125.85	352	-0.53	-0.56
Stock Options	1164.24	372.64	2244.56	374	1235.38	519.26	2309.04	352	-0.42	-1.87*
Total Compensation	2835.11	1696.83	3802.98	374	2547.76	1425.98	3474.51	352	1.98**	2.07**

Panel E: Vice President

	Dual Class				Single Class				Test for difference in mean	Test for difference in median
	Mean	Median	Std. Dev.	Obs	Mean	Median	Std. Dev.	Obs		
Salary	357.32	315.00	182.70	1583	329.04	300.00	151.07	1625	4.35***	3.80***
Bonuses	229.15	208.08	596.33	1583	181.92	109.16	409.66	1625	3.02***	2.33**
Other Compensation	60.70	13.62	215.48	1583	44.72	21.33	410.04	1625	2.42**	-5.08***
Stock Options	766.27	196.05	2142.24	1583	743.71	274.27	1481.36	1625	0.34	-5.94***
Total Compensation	1521.43	957.52	2501.34	1583	1398.45	887.61	1862.25	1625	2.04**	3.19***

Table 1 Cont'd

Panel F: Family CEO & Chairman

	Dual Class				Single Class				Test for difference in mean	Test for difference in median
	Mean	Median	Std. Dev.	Obs	Mean	Median	Std. Dev.	Obs		
Salary	885.67	800.00	558.35	201	666.37	582.50	313.71	94	2.69***	3.22***
Bonuses	1264.78	369.60	2788.90	201	823.63	278.15	2847.06	94	2.25***	1.98**
Other Compensation	354.13	103.21	490.99	201	89.91	16.91	147.66	94	2.57***	4.59***
Stock Options	3982.87	616.63	6889.87	201	2501.99	875.50	4736.53	94	1.37	-0.94
Total Compensation	7313.90	2987.81	9684.55	201	4460.25	1527.34	6346.50	94	2.22**	3.37***

Panel G: Family CEO Only

Family CEO	Dual Class				Single Class				Test for difference in mean	Test for difference in median
	Mean	Median	Std. Dev.	Obs	Mean	Median	Std. Dev.	Obs		
Salary	708.79	650.00	480.71	175	573.51	581.75	257.75	47	1.86*	2.09**
Bonuses	1231.96	420.00	774.55	175	359.15	14.00	708.64	47	2.13**	3.69***
Other Compensation	225.53	32.66	718.69	175	169.12	48.87	288.07	47	0.22	-0.86
Stock Options	2534.48	937.17	4931.29	175	2623.87	1373.15	3781.29	47	-0.11	-1.10
Total Compensation	5195.37	2823.63	5128.17	175	4078.05	2140.08	4542.40	47	2.25**	2.06**

Panel H: Family CEO Vs. Non-Family CEO

	Family CEO				Non-Family CEO				Test for difference in mean	Test for difference in median
	Mean	Median	Std. Dev.	Obs	Mean	Median	Std. Dev.	Obs		
Salary	768.60	675.00	577.54	517	716.62	657.42	450.53	1110	1.97**	2.44**
Bonuses	1108.28	341.44	2700.16	517	685.31	311.00	1322.69	1110	4.23***	2.47**
Other Compensation	241.78	45.86	1189.98	517	196.34	47.94	621.17	1110	1.01	-0.66
Stock Options	3093.68	792.00	5233.53	517	2288.06	821.75	4008.14	1110	2.87***	-1.43
Total Compensation	5806.49	2837.13	6042.82	517	4658.71	2582.60	5636.95	1110	3.11***	2.86***

Note: CEO and President are referred to as CEO in the above panels.

Table 2: Number of dual class firms by two-digit SIC industry code
This table illustrates the two-digit SIC code industry distribution of 792 firm-year observations over the period 2001-2007.

SIC Code	Industry description	% of total
10-17	Construction	2.78
20	Food and Kinder Products	7.70
22	Textile Mill Products	2.40
23	Appeal and other Finish Products	1.89
27	Printing and Publishing	8.21
28	Chemicals and Allied Products	4.92
29	Petroleum Refining and Related Industries	0.51
30	Rubber and Misc. Plastic Products	1.39
31	Leather and Leather Products	1.89
33	Primary Metals	0.25
34	Fabricated Metal Product	0.76
35	Industrial Machinery and Equipment	4.04
36	Electronic and other Electrical Equipment	7.58
37	Transportation Equipment	3.41
38	Instrument and Related Products	3.54
39	Misc. Manufacturing Industries	1.52
42	Motor Freight Transportation and Warehousing	1.14
47	Transportation Services	0.76
48	Communications	7.95
50-51	Wholesale Trade	2.90
52-59	Retail trade	8.59
60-61	Deposit Institution, and Non-depository Credit Institutions	1.52
62	Security And Commodity Brokers, Dealers, Exchanges, & Services	2.27
63	Insurance	3.66
67	Holding And Other Investment Offices	1.77
72	Personal Services	1.52
73	Business Services	9.09
78	Motion Pictures	1.77
79	Amusement and Rec. Services	2.02
80	Health Services	1.01
82	Educational Services	0.51
87	Engineering and Management Services	0.76

Note: The industry breakdown for the single class concentrated control companies is exactly the same as above due to matching by industry group.

Table 3: Summary statistics of governance characteristics, firm characteristics and executive characteristics

Significance level at the 1%, 5% and 10% is indicated as *, **, and ***, respectively. Test for difference in mean is the t-test and test for difference in median is the Wilcoxon signed-rank test.

Panel A: Governance Characteristics

	Dual Class			Single Class			Test for difference in mean	Test for difference in median
	Mean	Median	Std. Dev.	Mean	Median	Std. Dev.		
Cash Flow Rights (Largest Shareholder) %	22.50	18.20	16.50	23.60	19.20	13.20	-0.71	-0.62
Voting Rights (Largest Shareholder) %	57.80	54.80	25.70	23.60	19.20	13.20	34.33***	15.75***
Cash Flow Rights (Management & Directors) %	24.90	19.30	15.60	17.10	16.50	14.10	14.21***	4.47***
Voting Rights (Management & Directors) %	58.30	57.30	25.20	17.10	16.50	14.10	44.25***	15.82***
Mgmt. Voting Lev.	3.01	2.42	2.15	1.00	1.00	0.00	58.6****	82.55***
Institutional Ownership %	16.92	13.60	15.66	21.49	18.71	14.96	-13.24***	-15.65***
Board Size	10.89	10.00	3.89	10.32	10.00	3.48	0.87	0.08
Independent directors %	59.29	58.33	15.39	68.81	71.43	16.33	-26.71***	-27.01***
Busy Directors %	16.58	12.50	14.72	13.00	11.11	15.34	5.19***	6.88***
Grey Directors %	10.23	9.09	11.75	9.89	7.69	12.14	3.88***	4.58***
Family Directors %	15.80	12.50	12.73	5.62	0.00	10.60	34.83***	37.86***

Note: Observation for dual class sample is 792 firm-year and single class sample is 792 firm-year. A grey director is defined as an outside director who is related to the company through a transactional relationship and a busy director is a director with more than 4 board memberships.

Table 3 cont'd

Panel B: Firm Characteristics

	Dual Class			Single Class			Test for difference in mean	Test for difference in median
	Mean	Median	Std. Dev.	Mean	Median	Std. Dev.		
Tobin's Q ratio	1.87	1.47	1.24	2.04	1.62	1.25	-3.02***	-4.53***
Industry Adjusted Q	-0.59	-0.41	1.73	-0.39	-0.35	2.26	-2.00**	-1.98**
Sales ($m)	4917.45	1523.90	14597.23	4653.87	1629.00	15302.38	0.78	-0.89
Risk- Std Deviation %	40.27	30.79	31.46	40.88	31.10	28.12	-0.29	-0.69
Performance – RET %	12.61	8.35	34.87	10.80	7.45	38.52	2.18**	1.58
Performance – ROA %	9.75	8.87	8.81	9.57	9.06	9.30	0.86	-0.04
Financial Leverage -D/A	21.61	20.34	18.10	21.81	20.82	18.96	-0.58	-0.28
Growth (%)	9.98	6.67	15.61	9.37	6.46	16.64	1.07	1.08
Cash ($m)	642.28	166.00	775.81	431.08	132.80	841.11	2.88***	3.16***
$\Delta Cash_t$ ($m)	48.99	5.14	508.54	24.98	5.27	119.54	1.79*	-1.03
$\Delta Cash_t$ / Total $Asset_{t-1}$	0.028	0.003	0.173	0.012	0.002	0.095	1.99**	1.73*
Capex ($m)	256.54	65.50	518.22	138.34	46.51	308.65	3.33***	3.84***
ΔCapex ($m)	21.73	1.78	143.35	7.44	1.36	132.88	2.24**	0.78
ΔCapex/Market Value Equity	0.024	0.007	0.065	0.007	0.001	0.068	9.21***	2.99***

Note: The number of observations for each of the dual and single class samples is 792 firm-year.
Industry Adjusted Q-Mean is defined as the difference between the firm's Q ratio and the average SIC Industry Q ratio.

Table 3: Cont'd

Panel C: Executive Characteristics

	Dual Class			Single Class		
	Family Executives	Non-Family Executives	Total	Family Executives	Non-Family Executives	Total
Chairman only	115 (63.5%)	66 (36.5%)	181	33 (34.0%)	64 (66%)	97
Chief Executive Officer & Chairman	201 (51.8%)	187 (48.2%)	388	94(20.4%)	366 (79.6%)	460
Chief Executive Officer Only	175 (40.6%)	256 (59.4%)	431	47 (13.5%)	301 (86.5%)	348
Chief Financial Officer	21(3.1%)	649 (96.9%)	670	13 (1.8%)	689 (98.2%)	702
Chief Operating Officer	47(12.6%)	327 (87.4%)	374	12 (3.4%)	340 (96.6%)	352
Vice President	81(5.1%)	1502 (94.9%)	1583	26 (1.6*)	1599 (98.4%)	1625
Other Executives	18(6.1%)	275 (93.9%)	293	6(1.8%)	330 (98.2%)	336
Total	658 (16.8%)	3262 (83.2%)	3920	231(5.9%)	3689(94.1%)	3920

Table 4: Regression of executive compensation on management voting leverage, firm and governance characteristics

For a complete definition of the variables see Appendix A, Table 1A

$$Ln(Compensation)_{i,j,t} = \alpha_i + \phi_i \, Mgmt.Vote_{j,t-1} + \sum_{k=1}^{5} \eta_{i,k} Firm\ Characteristics_{k,j,t-1}$$

$$+ \sum_{k=1}^{6} \delta_{i,k} Governance_{k,j,t-1} + \sum_{k=1}^{6} \gamma_{i,k} Position_{k,j} + \varepsilon_{i,j,t}$$

where $Ln(Compensation)_{i,j,t}$ is the natural log of the i^{th} components as well as total compensation for all senior executives' compensation package for firm j at year t. T-statistics are adjusted for robust standard errors and reported below the estimated coefficient. Significance level at the 1%, 5% and 10% is indicated as *, **, and ***, respectively.

	Salary	**Bonuses**	**Other Compensation**	**Stock Options**	**Total Compensation**
	Estimates	**Estimates**	**Estimates**	**Estimates**	**Estimates**
	t-statistics	**t-statistics**	**t-statistics**	**t-statistics**	**t-statistics**
Mgmt. vote	0.021	0.033	0.021	0.016	0.029
	10.53***	6.13***	2.15**	2.67***	8.80***
Firm Characteristics					
Performance (ROA)	-0.238	0.601	0.829	0.760	0.320
	-3.80***	3.22***	3.41***	3.69***	2.06**
Financial Leverage	-0.036	0.212	0.159	-0.613	-0.283
(D/A)	-0.95	2.67***	1.44	-5.84***	-5.51***
Size (Log of sales)	0.428	0.848	0.751	1.003	0.862
	35.49***	25.82***	18.89***	29.39***	44.00***
Risk (Std. Dev.)	-0.032	0.153	-0.180	0.581	0.103
	-1.76*	3.02***	-2.57**	8.49***	2.89***
Growth	-0.232	0.205	-0.905	1.381	0.563
	-6.09***	1.89*	-7.08***	12.98***	6.94***
Governance Characteristics					
Board Size	0.014	0.026	0.017	0.027	0.014
	6.22***	4.23***	2.52**	4.94***	4.39***
Independent Directors	0.071	0.037	0.207	0.136	0.383
	1.59	0.35	1.69*	1.12	6.15***
Busy Directors	0.069	0.118	0.047	0.331	0.254
	1.90*	1.17	0.36	3.09***	4.02***
Grey Directors	0.198	0.012	-0.182	0.124	0.193
	4.40***	0.10	-1.20	0.86	2.58***
Fam. Directors	0.242	0.231	0.025	-0.338	-0.251
	3.76***	1.85*	0.15	-2.36**	-3.24***
Institutional	-0.025	0.234	0.409	0.054	0.085
Ownership	-0.88	2.90***	3.68***	0.57	1.60

Table 4 Cont'd

	Salary	Bonuses	Other Compensation	Stock Options	Total Compensation
	Estimates **t-statistics**	**Estimates** **t-statistics**	**Estimates** **t-statistics**	**Estimates** **t-statistics**	**Estimates** **t-statistics**
Executive Positions					
CEO & Chairman	0.613	1.055	1.009	1.353	1.008
	29.59***	17.89***	12.99***	22.40***	28.05***
CEO Only	0.421	0.839	0.575	1.15	0.821
	17.79***	14.58***	7.16***	17.58***	21.43***
Chair Only	0.302	0.731	0.778	0.725	0.471
	4.05***	7.39***	6.48***	6.23***	7.65***
CFO	-0.11	-0.091	-0.033	0.146	-0.036
	-5.92***	-1.80*	-0.48	2.59***	-1.13
COO	0.117	0.272	0.201	0.473	0.281
	5.40***	4.39***	2.47**	7.32***	7.49***
VP	-0.156	-0.245	-0.033	-0.044	-0.148
	-9.00***	-5.36***	-0.54	-0.83	-5.13***
Intercept	4.304	1.807	-0.008	2.055	3.694
	90.51***	13.00***	-0.04	13.33***	44.63***
Industry & Year Effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.465	0.359	0.223	0.427	0.483
Obs.	7920	5585	7333	5894	7920

Table 5: Panel regression of executive compensation on family executives, management voting leverage, firm and governance characteristics

For a complete definition of the variables see Appendix A, Table 1A

$$Ln(Compensation)_{i,j,t} = \alpha_i + \sum_{k=1}^{6} \varphi_{i,k} FamilyPosition_{k,j} + \phi_i \, Mgmt.Vote_{j,t-1} + \sum_{k=1}^{5} \eta_{i,k} Firm\ Characteristics_{k,j,t-1} + \sum_{k=1}^{6} \delta_{i,k} Governance_{k,j,t-1} + \sum_{k=1}^{6} \gamma_{i,k} Position_{k,j} + \varepsilon_{i,j,t}$$

where $Ln(Compensation)_{i,j,t}$ is the natural log of the i^{th} components as well as total compensation for all senior executives' compensation package for firm j at year t. T-statistics are adjusted for robust standard errors and reported below the estimated coefficient. Significance level at the 1%, 5% and 10% is indicated as *, **, and ***, respectively.

	Salary	**Bonuses**	**Other Compensation**	**Stock Options**	**Total Compensation**
	Estimates	**Estimates**	**Estimates**	**Estimates**	**Estimates**
	t-statistics	**t-statistics**	**t-statistics**	**t-statistics**	**t-statistics**
Fam. CEO &	0.004	0.03	0.068	0.027	0.035
Chairman	0.13	1.65*	0.58	1.79*	3.21***
Fam. CEO Only	0.023	0.061	0.122	0.042	0.035
	0.53	3.65***	0.97	2.28**	3.01***
Fam. Chair Only	0.217	-0.009	0.122	0.007	0.027
	1.56	-0.71	0.57	0.38	2.61***
Fam. CFO	0.126	0.02	0.014	0.01	0.04
	1.29	0.64	0.04	0.67	3.08***
Fam. COO	0.177	0.053	0.38	0.027	0.029
	3.71***	2.40**	1.52	2.75***	5.34***
Fam. VP	-0.048	-0.039	0.20	0.053	0.001
	-1.38	-1.00	1.58	1.45	0.03
Mgmt. Voting Lev.	0.020	0.035	0.018	0.002	0.017
	10.07***	4.22***	1.95*	0.25	3.34***
Firm Characteristics					
Performance	-0.233	0.614	0.827	0.757	0.526
(ROA)	-3.70***	3.29***	3.40***	3.65***	2.01**
Financial Leverage	-0.013	0.254	0.151	-0.549	-0.285
(D/A)	-0.33	2.88***	1.39	-5.46***	-5.09***
Size (Log of sales)	0.426	0.846	0.749	0.996	0.860
	34.89***	25.75***	18.81***	28.77***	43.81***
Risk (Std. Dev.)	-0.232	0.216	-0.91	1.383	0.564
	-6.11***	2.00**	-7.12***	13.02***	7.00***
Growth	-0.032	0.155	-0.178	0.569	0.100
	-1.74*	3.06***	-2.55**	8.27***	2.79***

Table 5 Cont'd

	Salary	Bonuses	Other Compensation	Stock Options	Total Compensation
	Estimates	**Estimates**	**Estimates**	**Estimates**	**Estimates**
	t-statistics	**t-statistics**	**t-statistics**	**t-statistics**	**t-statistics**
Governance Characteristics					
Board Size	0.014	0.025	0.016	0.028	0.014
	6.05***	4.06***	2.45**	5.03***	4.43***
Independent	0.071	0.044	0.209	0.118	0.373
Directors	1.59	0.41	1.71*	0.97	5.98***
Busy Directors	0.075	0.137	0.062	0.354	0.267
	2.05**	1.35	0.47	3.29***	4.22***
Grey Directors	0.198	0.033	-0.179	0.113	0.192
	4.40***	0.27	-1.18	0.78	2.57**
Fam. Directors	0.208	0.194	-0.072	-0.337	-0.266
	3.63***	1.54	-0.40	-2.34**	-3.42***
Institutional	-0.028	0.226	0.407	0.028	0.07
Ownership	-0.97	2.81***	3.65***	0.29	1.32
Executive Positions					
CEO & Chairman	0.42	0.789	0.548	1.118	0.796
	16.17***	13.03***	6.23***	16.61***	19.98***
CEO Only	0.196	0.755	0.725	0.733	0.440
	1.42	6.98***	4.30***	5.64***	6.53***
Chair Only	0.615	1.028	0.988	1.327	0.978
	26.63***	16.64***	11.40***	21.58***	26.47***
CFO	-0.109	-0.091	-0.030	0.145	-0.037
	-5.77***	-1.80*	-0.45	2.57**	-1.18
COO	0.108	0.263	0.179	0.462	0.273
	4.81***	4.22***	2.18**	7.08***	7.22***
VP	-0.151	-0.242	-0.038	-0.048	-0.147
	-8.46***	-5.27***	-0.62	-0.91	-5.10***
Intercept	4.308	1.805	0.018	2.107	3.736
	90.87***	12.88***	0.10	13.41***	44.46***
Industry & Year Effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.495	0.392	0.221	0.451	0.512
Obs.	7920	5585	7333	5894	7920

Table 6: Panel regression for a sub-sample of family executives

For a complete description of the variables see Appendix A, Table 1A.

$$Ln(Compensation)_{i,j,t} = \alpha_i + \sum_{k=1}^{6} \varphi_{i,k}(DFam.Execu._{k,j} \times Mgmt.Vote_{j,t-1}) + \phi_i Mgmt.Vote_{j,t-1} + \sum_{k=1}^{5} \eta_{i,k} Firm\ Characteristics_{k\ j,t-1} + \sum_{k=1}^{6} \delta_{i,k} Governance_{k,j,t-1} + \sum_{k=1}^{6} \gamma_{i,k} Position_{k,j} + \varepsilon_{i\ j,t}$$

where $Ln(Compensation)_{i,j,t}$ is the natural log of the i^{th} components as well as total compensation of each executives' compensation package for firm j at year t and DFam.Execu. is an indicator variable equal to 1 the k^{th} family executive in the j^{th} dual class firm and zero otherwise. T-statistics are adjusted for robust standard errors and reported below the estimated coefficients. Significance level at the 1%, 5% and 10% is indicated as *, **, and ***, respectively.

	Salary	**Bonuses**	**Other Compensation**	**Stock Options**	**Total Compensation**
	Estimates	**Estimates**	**Estimates**	**Estimates**	**Estimates**
	t-statistics	**t-statistics**	**t-statistics**	**t-statistics**	**t-statistics**
DFam. CEO &Chair x	0.017	0.041	0.103	0.008	0.026
Mgmt. Vote	2.12**	1.71*	3.70***	0.48	2.12**
DFam. CEO only x	0.021	0.074	0.036	-0.020	0.036
Mgmt. Vote	2.00**	2.57**	0.89	-0.86	2.28**
DFam. Chair only x	0.021	0.001	0.141	-0.010	0.048
Mgmt. Vote	2.98***	0.05	4.66***	-0.56	4.14***
DFam. CFO x Mgmt.	0.023	-0.003	0.050	-0.006	0.008
Vote	2.00**	-0.07	0.89	-0.33	0.51
DFam. COO x Mgmt.	0.022	0.009	0.132	0.011	0.032
Vote	2.74***	0.22	7.18***	0.76	3.87***
DFam. VP x Mgmt.	-0.016	-0.043	0.073	-0.051	-0.054
Vote	-0.85	-0.86	1.44	-1.09	-1.27
Mgmt. Vote	0.069	0.238	0.035	0.435	0.344
	2.43**	1.84*	0.35	4.49***	6.24***
Firm Characteristics					
Performance (ROA)	-0.112	0.749	0.841	1.701	0.999
	-0.46	1.15	1.13	1.99**	2.03**
Financial Leverage	0.172	0.163	1.526	-0.103	0.108
(D/A)	1.50	0.54	3.56***	-0.24	0.52
Size (Log of sales)	0.449	0.771	0.487	1.178	0.886
	12.09***	6.60***	3.06***	6.78***	10.98***
Risk (Std. Dev.)	0.022	-0.050	-0.036	1.216	-0.004
	0.31	-0.26	-0.13	3.72***	-0.030
Growth	-0.350	-0.656	0.689	1.134	0.697
	-2.31**	-1.6	1.06	2.80***	2.56**

Table 6 Cont'd

	Salary	Bonuses	Other Compensation	Stock Options	Total Compensation
	Estimates	**Estimates**	**Estimates**	**Estimates**	**Estimates**
	t-statistics	**t-statistics**	**t-statistics**	**t-statistics**	**t-statistics**
Governance Characteristics					
Board Size	0.023	0.033	0.054	-0.015	-0.012
	2.97***	1.90*	2.44**	-0.69	-1.08
Independent Directors	-0.186	0.254	-0.004	0.404	0.531
	-1.65*	0.67	-0.01	0.98	2.55**
Busy Directors	-0.012	0.453	0.493	-0.030	0.430
	-0.11	1.49	1.13	-0.08	2.01**
Grey Directors	-0.156	0.161	-0.226	-0.516	-0.14
	-0.94	0.37	-0.46	-1.14	-0.52
Family Directors	0.176	-0.152	-0.601	0.017	-0.029
	1.22	-0.34	-1.01	0.03	-0.11
Institutional	-0.381	0.531	-0.338	-0.164	-0.030
Ownership	-3.34***	1.43	-0.80	-0.36	-0.13
Executive Positions					
CEO & Chairman	0.277	0.429	0.623	1.457	0.571
	3.00***	2.05**	1.34	3.08***	3.41***
CEO Only	0.083	0.19	0.377	1.559	0.461
	0.84	0.86	0.80	3.30***	2.71***
Chair Only	0.065	0.195	0.334	0.841	-0.174
	0.67	0.84	0.70	1.69*	-0.90
CFO	-0.402	-0.112	-0.186	0.424	0.012
	-3.15***	-0.37	-0.31	0.76	0.05
COO	-0.072	-0.048	-0.58	0.724	-0.258
	-0.66	-0.17	-1.08	1.43	-1.32
VP	-0.343	-0.748	-0.249	0.890	-0.068
	-3.39***	-2.84***	-0.51	1.71*	-0.35
Intercept	4.486	2.371	0.215	0.426	3.375
	25.30***	5.27***	0.29	0.54	11.08***
Industry & Year Effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.541	0.576	0.389	0.396	0.601
Obs.	889	601	804	571	889

Table 7: Panel regression of dual class discount on excess corporate cash holdings

$$Dual\ Class\ Discount_{j,t+1} = \alpha + \beta_1 (Excess\ Cash \times Mgmt.Vote)_{j,t} + \beta_2 Mgmt.Vote_{j,t} + \beta_3 Excess\ Cash_{j,t} + \beta_4 Financial\ Leverage_{j,t} + \beta_5 Conversion\ Right_{j,t} + \beta_6\ Size_{j,t} + \beta_7 Div.diff_{j,t} + \varepsilon_{j,t}$$

where dual discount in models (1) & (2) is the difference between Tobin's Q ratio of a dual class company and the Q ratio a single class concentrated control company using propensity score matching. The dual class discount in models (3) and (4) is the difference between Q ratio of a dual class firm and its industry mean Q ratio.

Excess cash is defined as $\left(\frac{\Delta\ cash_{t,t}}{Total\ assets_{t-1}}\right)_{Dual\ class} - \left(\frac{\Delta\ cash_{t,t}}{Total\ assets_{t-1}}\right)_{Single\ class}$ where the change in cash is cash and marketable securities at the end of year t minus year t-1. Conversion right is an indicator variable equal to 1if superior voting shares can be converted into subordinate voting shares and 0 otherwise. Size is the natural logarithm of market value of equity. Div. diff is an indicator variable equal to 1 if dividend paid or payable to subordinate voting shares is greater than dividend paid or payable to superior voting shares and zero otherwise. T-statistics are adjusted for robust standard errors and reported below the estimated coefficients. Significance level at the 1%, 5% and 10% is indicated as *, **, and ***, respectively.

	(1)	(2)	(3)	(4)
	Estimates t-statistics	**Estimates t-statistics**	**Estimates t-statistics**	**Estimates t-statistics**
Excess Cash x Mgmt. Vote	-0.358	-0.414	-0.474	-0.188
	-3.68***	-3.63***	-4.41***	-2.00**
Mgmt. Vote	-0.134	-0.136	-0.053	-0.052
	-9.22***	-9.35***	-3.81***	-3.70***
Excess Cash	1.097	1.308	1.478	0.292
	3.67***	3.42***	3.95***	0.86
ΔCash †		-0.014		-0.013
		-2.90***		-3.11***
$\Delta Cash_t$ x $Cash_{t-1}$ †		0.02		0.12
		0.81		7.05***
$\Delta Cash_t$ x Financial Leverage †		0.001		0.001
		1.95*		0.86
Financial Leverage	-0.044	-0.039	-0.054	-0.062
	-3.08***	-2.79***	-3.02***	-3.46***
Conversion Rights	-0.402	-0.400	-0.266	-0.274
	-5.88***	-5.81***	-4.72***	-4.91***
Size	0.118	0.122	0.204	0.193
	5.60***	5.77***	8.44***	8.01***

Table 7 Cont'd

	(1)	(2)	(3)	(4)
	Estimates	**Estimates**	**Estimates**	**Estimates**
	t-statistics	**t-statistics**	**t-statistics**	**t-statistics**
Div. Difference	-0.152	-0.144	0.688	0.689
	-1.16	-1.11	7.95***	7.94***
Intercept	-0.486	-0.515	-1.178	-1.083
	-2.65***	-2.80***	-6.65***	-6.15***
Industry Effects	Yes	Yes	Yes	Yes
Year Effects	Yes	Yes	Yes	Yes
Adjusted R^2	0.147	0.151	0.136	0.159
Obs.	792	792	792	792

Note: † Coefficients are multiplied by 100 for presentation.

Table 8: Panel regression of dual class discount on capital expenditure

$$Dual\ Class\ Discount_{J,t+1} = \alpha + \beta_1 (Capex \times Mgmt.Vote)_{J,t} + \beta_2 Mgmt.Vote_{J,t} + \beta_3 Capex_{J,t} + \beta_4 Financial\ \ Leverage_{J,t} + \beta_5 Conversion\ Right_{J,t} + \beta_6\ Size_{J,t} + \beta_7 Div.\ diff_{J,t} + \varepsilon_{J,t}$$

where dual discount in model (1) is the difference between Tobin's Q ratio of a dual class company and the Q ratio a single class concentrated control company using propensity score matching. The dual class discount in model (2) is the difference between Q ratio of a dual class firm and its industry mean Q ratio.

Capital Expenditure (Capex) is defined as

$$\left(\frac{\Delta Capex_{i,t}}{Market\ Value_{t-1}}\right)_{Dual\ class} - \left(\frac{\Delta Capex_{i,t}}{Market\ Value_{t-1}}\right)_{Single\ class}$$

T-statistics are adjusted for robust standard errors and reported below the estimated coefficients. Significance level at the 1%, 5% and 10% is indicated as *, **, and ***, respectively.

	(1)	(2)
	Estimates	**Estimates**
	t-statistics	**t-statistics**
Capex x Mgmt. Vote	0.053	-0.041
	0.93	-1.08
Mgmt. Vote	-0.086	-0.051
	-4.65***	-3.49***
Capex †	-0.011	-0.010
	-3.86***	-3.23***
Financial Leverage	-0.010	-0.033
	-0.50	-1.62
Conversion Rights	-0.463	-0.299
	-5.24***	-5.11***
Size	0.110	0.233
	3.70***	8.35***
Div. Difference	-0.091	0.715
	-0.48	8.17***
Intercept	-0.618	-1.365
	-2.33**	-7.01***
Industry Effects	Yes	Yes
Year Effects	Yes	Yes
Adjusted R^2	0.056	0.082
Obs.	792	792

Note: † Coefficients are multiplied by 100 for presentation.

Table 9: Fixed effects regression of dual class discount on excess compensation and excess corporate cash holdings

$$Ln(Compensation)_{i,j,t} = \alpha_i + \sum_{k=1}^{5} \eta_{i,k} Firm\ Characteristics_{k,j,t-1} + \sum_{k=1}^{6} \delta_{i,k} Governance_{k,j,t-1} + \sum_{k=1}^{6} \gamma_{i,k}\ Position_{k,j} + \varepsilon_{i,j,t}$$

where i is equal to different components as well as total compensation for each executives' compensation package for firm j at year t.

$$Dual\ Class\ Discount_{j,t+1} = \alpha + \beta_1 Excess\ Comp._{j,t} + \beta_2 (Mgmt.Vote \times Excess\ Cash)_{j,t} + \beta_3 Mgmt.Vote_{j,t} + \beta_4 Excess\ Cash_{j,t}$$

$$+ \beta_5 Financial\ Leverage_{j,t} + \beta_6 Conversion\ Right_{j,t} + \beta_7\ Size_{j,t} + \beta_8 Div.diff_{j,t} + \sum_{k=1}^{6} \gamma_k Position_{k,j} + \varepsilon_{j,t}$$

Excess compensation$_{i,j,t}$ is the residual from the above equation and it represents excess salary (column I), excess bonuses (column II), excess other compensation (column III), excess stock options (column IV) and excess total compensation (column V). Column VI reports estimates for the interaction term between the dummy variable for dual class executives and excess total compensation. Excess cash, dividend difference (div. diff), financial leverage, size and conversion rights are the same as in Table 7. T-statistics are adjusted for robust standard errors and significance level at the 1%, 5% and 10% is indicated as *, **, and ***, respectively.

Panel A: Dependent variable –dual discount is the difference between Tobin's Q ratio of a dual class company and the Q ratio of a single class concentrated control company using propensity score matching.

	I		II		III		IV		V		VI	
	Est.	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**
Excess Compensation	-0.162	-2.70***	-0.063	-1.61	-0.064	-3.82***	0.115	3.65***	-0.131	-3.35***	-0.106	-2.36**
Mgmt. Vote x Excess Cash	-0.351	-3.43***	-0.279	-2.43**	-0.423	-3.42***	-0.581	-3.88***	-0.342	-3.50***	-0.067	-8.88***
Mgmt. Vote	-0.133	-9.11***	-0.129	-7.65***	-0.128	-8.84***	-0.160	-9.00***	-0.134	-8.86***	-0.364	-3.59***
DFam. CEO & Chair x Excess Compensation											-0.351	-2.78***
DFam. CEO only x Excess Compensation											-0.455	-1.99**
DFam. Chair only x Excess Compensation											0.057	0.45

Table 9 Cont'd

	I		II		III		IV		V		VI	
	Est.	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**
DFam. CFO x Excess Compensation											0.285	0.74
DFam. COO x Excess Compensation											0.141	0.67
DFam. VP x Excess Compensation											0.050	0.32
Excess Cash	1.077	3.32***	0.890	2.57**	1.503	5.12***	1.562	3.55***	1.041	3.41***	1.110	3.53***
Financial Leverage	-0.046	-3.21***	-0.044	-3.03***	-0.047	-3.70***	-0.070	-2.81**	-0.050	-3.23***	-0.052	-3.49***
Conversion Rights	-0.402	-5.83***	-0.605	-7.12***	-0.375	-5.29***	-0.573	-6.97**	-0.405	-5.84***	-0.409	-5.95***
Size	0.115	5.42***	0.148	5.72**	0.118	5.53***	0.098	3.52**	0.137	5.94***	0.127	5.96***
Div. Diff	-0.164	-1.26	-0.254	-1.59	-0.132	-1.03	0.277	2.37**	-0.178	-1.30	-0.135	-1.04
Intercept	-0.347	-1.74*	-0.353	-1.49	-0.320	-1.67*	-0.112	-0.43	-0.441	-2.19**	-0.622	-3.22***
Executive Positions	Yes		Yes		Yes		Yes		Yes		Yes	
Industry and Year Fixed Effects	Yes		Yes		Yes		Yes		Yes		Yes	
Adjusted R^2	0.166		0.113		0.161		0.106		0.191		0.221	
Obs.	3960		2860		3731		2809		3960		3960	

Table 9: Cont'd

Panel B: Dependent variable – dual discount is the difference between Tobin's Q ratio of a dual class company and its industry mean Q ratio.

	I		II		III		IV		V		VI	
	Est.	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**
Excess Compensation	-0.046	-1.82*	-0.013	-0.41	-0.051	-3.19***	0.042	1.63	-0.204	-5.71***	-0.170	-4.61***
Mgmt. Vote x Excess Cash	-0.378	-3.35***	-0.546	-4.64***	-0.433	-4.51***	-0.185	-1.69*	-0.455	-4.51***	-0.030	-4.34***
Mgmt. Vote	-0.051	-3.60***	-0.056	-3.57***	-0.025	-1.90*	-0.055	-3.34***	-0.047	-3.35***	-0.154	-4.49***
DFam. CEO & Chair x Excess Compensation											-0.383	-3.07***
DFam. CEO only x Excess Compensation											-0.207	-1.93*
DFam. Chair only x Excess Compensation											0.049	0.27
DFam. CFO x Excess Compensation											-0.045	-0.17
DFam. COO x Excess Compensation											-0.212	-0.56
DFam. VP x Excess Compensation											0.213	1.31
Excess Cash	1.102	2.74***	1.670	4.13***	1.754	5.35***	0.622	1.48	1.380	3.96***	1.359	3.91***
Financial Leverage	-0.058	-3.20***	-0.059	-3.05***	-0.042	-2.55**	-0.006	-0.19	-0.055	-3.06***	-0.055	-3.09***
Conversion Rights	-0.276	-4.92***	-0.331	-4.71***	-0.284	-5.16***	-0.293	-4.42***	-0.244	-4.40***	-0.250	-4.38***
Size	0.199	8.21***	0.212	7.09***	0.184	7.15***	0.213	7.26***	0.220	9.08***	0.221	9.10***
Div. diff	0.681	7.85***	0.698	6.41***	0.677	7.81***	0.600	4.83***	0.643	7.41***	0.650	7.30***
Intercept	-1.149	-6.23***	-1.259	-6.12***	-1.303	-7.24***	-1.030	-4.34***	-1.342	-7.26***	-1.427	-8.02***
Executive Positions	Yes		Yes		Yes		Yes		Yes		Yes	
Industry and Year Fixed Effects	Yes		Yes		Yes		Yes		Yes		Yes	
Adjusted R^2	0.093		0.105		0.085		0.101		0.105		0.109	
Obs.	3960		2860		3731		2809		3960		3960	

Table 10: Pair-wise test of separation of voting and cash flow rights on executive compensation: Fixed effects and 2SLS

Note: This table presents results of the fixed effects pair-wise regressions using the Two Stage-Least Square approach. The results reported in column I are the second stage estimates for equation (10) using the predicted management voting leverage estimated using equation (9). Column II reports the results of estimating equation (5) which examines executive compensation of family members using the predicted management voting leverage from equation 9. Column III reports the results of re-estimating equation (6) using predicted management voting leverage for a sub-sample of family executives only. For a complete description of the variables, see Table 1. Significance level at the 1%, 5% and 10% is indicated as *, **, and ***, respectively.

	I		II			III	
Dependent Variable: Ln (Total Compensation)							
	Estimates	**t-statistics**	**Estimates**	**t-statistics**		**Estimates**	**t-statistics**
Mgmt. Voting Leverage	0.387	21.94***	0.379	21.70***	Mgmt. Voting Leverage	0.344	6.20***
Fam. CEO & Chairman			0.022	2.13**	DFam. CEO & Chair x Mgmt. Vote	0.031	2.32**
Fam. CEO Only			0.035	3.28***	DFam. CEO only x Mgmt. Vote	0.030	1.85*
Fam. Chair Only			0.024	2.36**	DFam. Chair only x Mgmt. Vote	0.047	3.99***
Fam. CFO			0.036	2.83***	DFam. CFO x Mgmt. Vote	0.008	0.48
Fam. COO			0.023	4.83***	DFam. COO x Mgmt. Vote	0.030	3.68***
Fam. VP			0.004	0.19	DFam. VP x Mgmt. Vote	-0.060	-1.28
Performance	0.369	3.08***	0.383	3.19***	Performance	1.107	2.22**
Financial Leverage (D/A)	0.014	0.26	0.019	0.33	Financial Leverage (D/A)	0.088	0.42
Size	0.769	38.62***	0.764	38.43***	Size	0.888	10.96**
Risk (Std. Dev.)	0.085	2.44**	0.086	6.89***	Risk (Std. Dev.)	0.027	2.47***
Growth	0.535	6.88***	0.534	2.49**	Growth	-0.670	-0.18
Board Size	0.014	4.60***	0.013	4.34***	Board Size	-0.012	-1.07
Independent Directors	0.395	6.61***	0.402	6.74***	Independent directors	0.493	2.37**
Busy	0.271	4.49***	0.278	4.62***	Busy	0.436	2.05**
Grey	0.222	3.08***	0.246	3.41***	Grey	-0.173	-0.64

Table 10 Cont'd

	I		II			III	
	Estimates	**t-statistics**	**Estimates**	**t-statistics**		**Estimates**	**t-statistics**
Family Directors	-0.230	-3.10***	-0.283	-3.81***	Family Directors	-0.098	-0.36
Inst. Investors	0.083	1.62	0.082	1.64	Inst. Investors	-0.060	-0.25
Intercept	3.207	38.19***	3.242	38.50***	Intercept	3.423	11.39***
Executive Positions	Yes		Yes		Executive Positions	Yes	
Industry and Year Effects	Yes		Yes		Industry and Year Effects	Yes	
Adjusted R^2	0.518		0.529		Adjusted R2	0.601	
Obs.	7920		7920		Obs	881	

Table 11: Total Compensation based on the Heckman two stage treatment effects model

This table reports the second stage coefficients of estimates from Heckman two stage treatment effect models. In the first stage, we run the probit selection model where the dependent variable is an indicator variable that equals to 1 if a firm has more than one class of common shares and 0 otherwise. I include Lambda (inverse Mills ratio) in the second stage with control valuables. The dependent variable in the second stage is the Ln(total compensation). Model (1) is similar to the last column in Table 4, Model (2) includes indicator variables for various executive positions held by family members and Model (3) examines a sub-sample of only family executives. For a complete description of the variables see Appendix A, Table 1A. T-statistics are adjusted for robust standard errors and significance level at the 1%, 5% and 10% is indicated as *, **, and ***, respectively.

	Model (1)		**Model (2)**			**Model (3)**	
	Estimates	**t-statistics**	**Estimates**	**t-statistics**		**Estimates**	**t-statistics**
Mgmt. Voting Leverage	0.030	8.82***	0.017	3.42***	Mgmt. Voting Leverage	0.034	6.17***
Fam. CEO & Chairman			0.034	3.13***	DFam. CEO & Chair x Mgmt. Vote	0.025	2.04**
Fam. CEO Only			0.035	3.01***	DFam. CEO only x Mgmt. Vote	0.037	2.29**
Fam. Chair Only			0.029	2.82***	DFam. Chair only x Mgmt. Vote	0.048	4.12***
Fam. CFO			0.040	3.06***	DFam. CFO x Mgmt. Vote	0.008	0.50
Fam. COO			0.028	5.28***	DFam. COO x Mgmt. Vote	0.032	3.84***
Fam. VP			0.001	0.04	DFam. VP x Mgmt. Vote	-0.050	-1.26
Performance	0.100	0.80	0.095	0.76	Performance	1.046	2.11**
Financial Leverage (D/A)	-0.276	-5.31***	-0.276	-4.89***	Financial Leverage	0.106	0.51
Size	0.862	43.79***	0.859	43.58***	Size	0.884	10.84***
Risk (Std. Dev.)	0.100	2.74***	0.579	7.14***	Risk (Std. Dev.)	-0.007	-0.04
Growth	0.579	7.09***	0.097	2.66***	Growth	0.700	2.56**
Board Size	0.014	4.49***	0.014	4.51***	Board Size	-0.012	-1.05
Independent Directors	0.391	5.81***	0.387	5.75***	Independent Directors	0.558	2.41**
Busy	0.254	3.98***	0.268	4.19***	Busy	0.438	2.02**
Grey	0.203	2.66***	0.202	2.64***	Grey	-0.159	-0.59
Family Directors	-0.202	-1.85*	-0.233	-2.14**	Family Directors	-0.010	-0.03
Inst. Investors	0.069	1.26	0.055	1.01	Inst. Investors	-0.031	-0.13

Table 11 Cont'd

	Model (1)		Model (2)		Model (3)		
	Estimates	**t-statistics**	**Estimates**	**t-statistics**		**Estimates**	**t-statistics**
Lambda (Inverse Mills Ratio)	0.014	0.52	0.008	0.32	Lambda (Inverse Mills Ratio)	0.002	0.01
Intercept	3.668	43.05***	3.713	42.84***	Intercept	3.379	10.96***
Executive Positions	Yes		Yes		Executive Positions	Yes	
Industry and Year Effects	Yes		Yes		Industry and Year Effects	Yes	
Adjusted R^2	0.456		0.484		Adjusted R^2	0.583	
Obs.	7920		7920		Obs.	881	

Table 12: Panel regression of total compensation on management voting leverage, age and equity ownership

The dependent variable is the natural logarithm of total compensation. Share ownership is the percentage of equity owned by an executive. For a complete definition of the variables see Appendix A, Table 1A. T-statistics are adjusted for robust standard errors and significance level at the 1%, 5% and 10% is indicated as *, **, and ***, respectively.

	Estimates	t-statistics	Estimates	t-statistics	Estimates	t-statistics
Mgmt. Vote	0.043	7.05***	0.034	6.98***	0.048	5.56***
Executive Age	-0.001	-0.73			0.001	0.56
Equity Ownership			-0.636	-1.96**	-0.741	-2.08**
Firm Characteristics						
Performance (ROA)	0.454	3.15***	0.23	2.14**	0.327	2.39**
Financial Leverage (D/A)	0.278	4.08***	0.282	1.88*	0.438	4.13***
Size (Log of sales)	0.726	28.28***	0.780	31.15***	0.758	19.95***
Risk (Std. Dev.)	0.131	2.06**	0.146	1.96**	0.246	1.99**
Growth	0.851	11.29***	0.615	6.12***	0.676	4.69***
Governance Characteristics						
Board Size	0.019	4.78***	0.015	4.46***	0.012	2.45**
Independent Directors	0.632	6.92***	0.178	1.72*	0.471	3.10***
Busy Directors	0.626	6.91***	0.421	4.93***	0.472	3.79***
Grey Directors	0.461	3.97***	0.278	1.88*	0.198	2.03**
Fam. Directors	-0.261	-2.34**	-0.254	-1.68*	-0.533	-2.41**
Institutional Ownership	-0.054	-0.63	-0.120	-1.26	-0.309	-2.14**
Executive Positions						
CEO & Chairman	0.854	15.44***	1.171	18.91***	1.039	11.67***
CEO Only	0.711	12.94***	0.903	15.56***	0.828	9.67***
Chair Only	0.369	5.30***	0.645	8.86***	0.474	4.80***
CFO	-0.094	-1.59	0.036	0.67	0.024	0.26
COO	0.170	2.80***	0.359	5.95***	0.270	2.83***
VP	-0.202	-3.80***	-0.013	-0.27	0.009	0.11
Intercept	3.990	26.46***	4.083	30.52***	4.003	15.80***
Industry & Year Effects	Yes		Yes		Yes	
Adjusted R^2	0.469		0.475		0.483	
Obs.	3889		3448		3332	

Figure 1: Median total compensation of the top three highest paid executives over the period 2001-2007

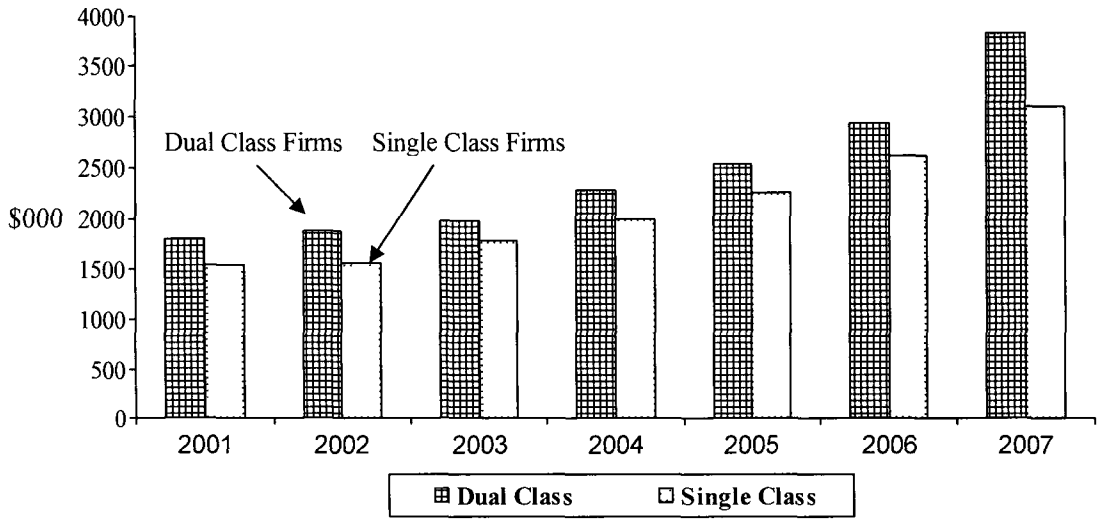
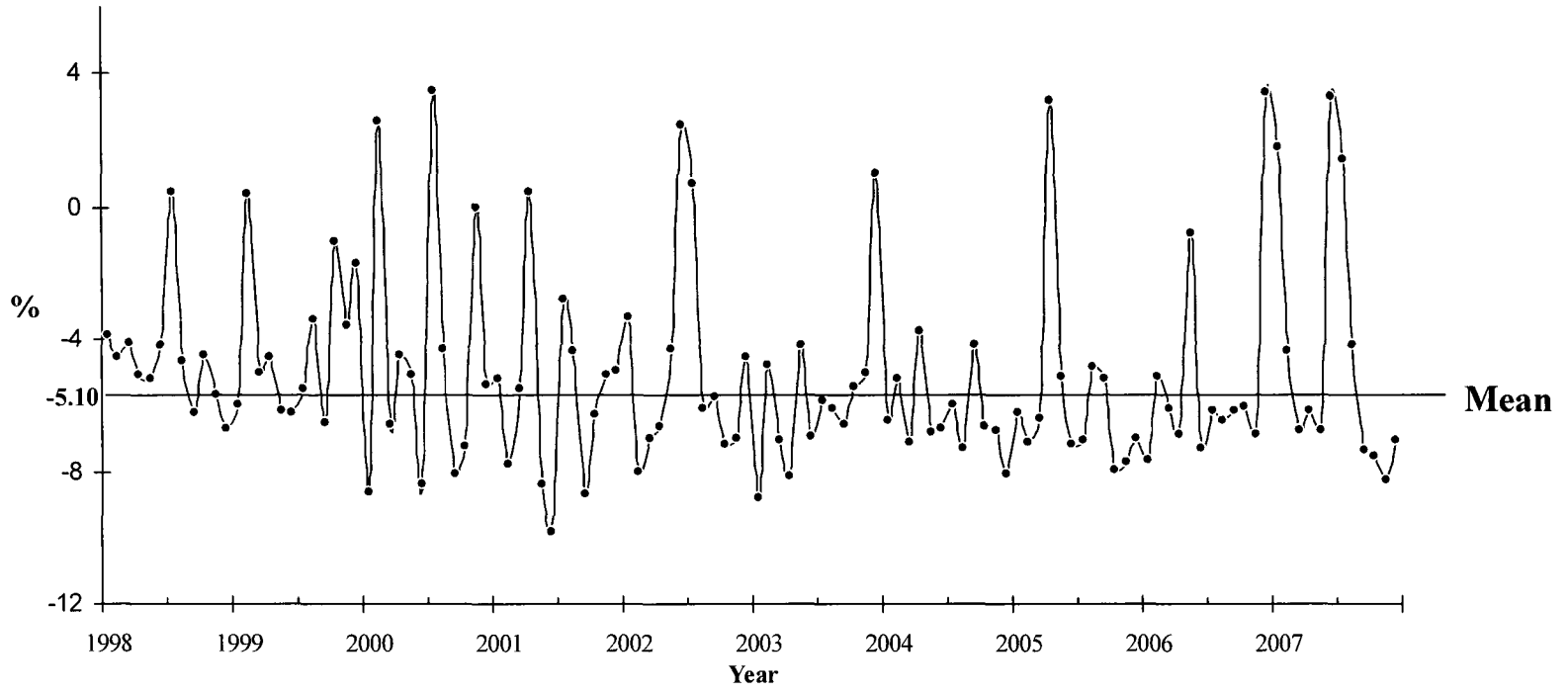


Figure 2: Average discount of dual class firms with both classes of shares trading over the period 1998-2007



Note: The discount is calculated using monthly data. The mean discount over the period 1998-2007 is -5.10% and statistically significant from zero. This is consistent with the findings of Zingales (1995). The definition for share discount = $\left(\frac{P_{RV} - P_{SV}}{rP_{SV} - P_{RV}}\right)$, where r is the ratio of votes per restricted voting shares divided by votes per superior voting shares and PRV is the price of restricted voting shares and PSV is the price of superior voting shares. This is a modified version of Zingales (1995) voting premium.

8.0 Appendix A:

Table 1A: Variable description and measurement

Variable	Label	Measurement
Compensation		
Salary	Salary	The dollar value of the base salary earned by the named executive officer.
Annual Bonuses	Bonuses	The dollar value of bonuses earned by the named executive officer.
Stock Option Grants	Stock Options	Executive's stock options compensation valued using the Black-Scholes model.
Other compensation	Other	Other compensation received by the executive including perquisites and other personal benefits, termination or change-in-control payments, contributions to defined contribution plans, life insurance premiums, gross-ups and other tax reimbursements, discounted share purchases, value of restricted stock grants and long term incentive payouts.
Total compensation	Total	Sum of salary, bonuses, stock options and other compensation (Execucomp- TDC1).
Governance Characteristics		
Management Voting Leverage	Mgmt. vote	The percentage of total votes controlled by the management and directors divided by the percentage of total equity stake owned by management and directors as a group.
Board size	Boardsize	Number of directors on the board.
Independent directors	Independent directors	Number of unrelated outside directors divided by total number of directors.
Grey outside directors	Grey	Number of outside directors who are related to the company through transactional relationships divided by total number of directors.
Busy directors	Busy	Number of directors with more than 4 board memberships divided by total number of directors.
Family Directors	Fam. Dir	The percentage of family members on the board of directors.
Institutional Ownership	Inst. investors	Percentage of shares owned or controlled by institutional investors.
Firm Characteristics		
Firm performance	Performance	Annual return on assets as measured by EBIT/total assets at fiscal year end.

Table 1A Cont'd

Variable	Label	Measurement
Financial leverage	Financial Leverage	Total short-term and long-term debt divided by total assets.
Firm size	Size	Natural logarithm of firm's sales.
Firm risk	Risk	Standard deviation of firm's annual stock returns over the previous 5 years.
Growth	Growth	Geometric mean growth in total assets over the previous five year period.
Cash	Cash	Cash and marketable securities.
Capital expenditure	Capex	Firms capital expenditure spending.
Executive Characteristics		
Chief Executive Officer & Chairman	CEOChair	Indicator variable =1 if the executive is the CEO and is also the Chairman of the board and 0 otherwise
Chairman Only	Chair only	Binary variable equal to 1 if the individual is the Chairman of the board and 0 otherwise.
Chief Executive Officer Only	CEO Only	Indicator variable =1 if the executive is the CEO only and 0 otherwise
Chief Financial Officer	CFO	Indicator variable =1 if the executive is the CFO and 0 otherwise
Chief Operating Officer	COO	Indicator variable=1 if the executive is the COO and 0 otherwise
Vice President	VP	Indicator variable =1 if the executive is the VP and 0 otherwise
Other Executives	Other	Binary variable =1 if the executive in not CEO, Chairman, CFO COO or VP and zero otherwise. For example, President of a subsidiary is classified as an other executive.
Family CEO & Chairman	Fam. CEOChair	Indicator variable =1if the executive is the CEO is also the Chairman of the board and a family member and 0 otherwise
Family Chairman Only	Fam. Chair only	Binary variable equal to 1 if the individual is the Chairman of the board and a family member and 0 otherwise
Family Chief Executive Officer Only	Fam. CEO Only	Indicator variable equal to 1 if the CEO is the founder or a related family member and 0 otherwise
Family Chief Financial Officer	Fam. CFO	Indicator variable equal to 1 if the CFO is the founder or a related family member and 0 otherwise.
Family Chief Operating Officer	Fam. COO	Indicator variable equal to 1 if the COO is a family member and 0 otherwise.
Family Vice President	Fam. VP	Indicator variable equal to 1 if the VP is a family member and 0 otherwise.
Other Family Executives	Fam. Other	Indicator variable equal to 1 if the executive is a family member and classified as an other executive and zero otherwise.

Chapter 3

Ownership Structure, Agency Problems and Dividend Policy

1.0 Introduction

This research investigates the effects of different ownership structures on corporate distribution of wealth when companies are closely controlled. The sample of companies studied is drawn from the S&P 1500 and the aim is to examine whether dividends are higher in firms with dual class ownership structure relative to firms with a single class concentrated ownership structure.[40] There are generally two agency issues associated with concentrated ownership and control. The separation of ownership and control gives rise to classical principal-agent problems between managers and shareholders. This type of agency problem can be mitigated through an increase in ownership and monitoring by large shareholders with a significant equity stake in the company (Jensen and Meckling, 1976). However this in turn, gives rise to a different type of agency problem. Concentrated ownership and control in both single class and dual class companies can result in conflicts between large majority and minority shareholders.[41] The agency costs associated with dual class ownership structure are higher than those of single class concentrated control firms due to the additional monitoring costs associated with two groups of non-controlling shareholders:

[40] Following LaPorta et al., (1999) and Claessen et al., (2000), a single class firm with concentrated ownership is defined as a firm with ownership of 15% of the shares outstanding by an individual, a family or an institution.
[41] Minority shareholders are defined as a group of dispersed shareholders who each hold a small proportion of votes in the firm.

minority shareholders who hold superior voting shares and minority shareholders who hold restricted voting shares.

Agency costs imposed by controlling shareholders with large voting rights and small equity interest (dual class firms) can be larger than those imposed by controlling shareholders who hold a majority of the cash flow rights (single class with concentrated ownership).[42] As the size of cash flow rights decrease, the agency costs increase however, not linearly, but rather at a sharply increasing rate (Bebchuk et al., 2000). In dual class firms, the controlling shareholder receives only a fraction of the corporate distribution, but extracts the full private benefits from assets left in the firm (Bebchuk et al., 2000). Therefore, there is a desire to institute lower distribution policies in order to retain assets which are extracted as private benefits. In comparison, controlling shareholders of single class firms will receive a larger fraction of the corporate distribution to shareholders because of their significant equity ownership. Hence, they have an incentive to distribute more cash flow than their dual class counterparts.

Dual class ownership structure can also lead to weaker alignment of interests among shareholders compared to single class companies with concentrated ownership due to the divergence of voting and cash flow rights. This can lead to potential expropriation of minority shareholders (Grossman and Hart, 1988). Concentrated control in the hands of a single shareholder gives him/her the opportunity to extract private benefits both in dual class and single class companies at the expense of minority shareholders. However, this may be more pronounced in dual class firms where large shareholders control a significant

[42]A controlling shareholder is defined as an owner with a certain percentage of total votes which normally allows them to have *de facto* control due to the difficulty of organizing dispersed shareholders. Hence, I focus on the agency problems of concentrated ownership and control.

proportion of the voting rights relative to the small proportion of cash flow rights they own (Correia da Silva et al., 2004).

The main objective of this research is to examine the agency problems associated with concentrated ownership and control. In particular, I examine dividend policy of dual class companies compared to single class companies with concentrated control. I attempt to provide evidence in support of one of the three competing explanations for dividend policy in a sample of firms with concentrated ownership and control. This research intends to test which of the three hypotheses hold: the rent extraction/private benefits of control explanation, the family legacy explanation and the managerial reputation explanation for corporate distribution. The rent extraction/private benefit hypothesis predicts that executives and controlling shareholders in dual class firms will set a low dividend payout policy in order to retain and use firms' resources for their own benefits. The separation of voting from cash flow rights allows a controlling shareholder to extract private benefits without facing the proportionate cash flow consequences that a similar controlling shareholder with significant equity ownership in a single class firm would face. Alternatively, in firms with family control, the family reputation, identity and wealth are attached to the firm or a group of related companies. Therefore, in order to ensure intergenerational transfer of wealth, control and the family legacy to their heirs, controlling shareholders may set a low dividend payout policy. The resources retained within the firm are then used to grow the wealth in the firm.

The managerial reputation explanation for dividend policy in dual class firms states that investors know that managers of dual class firms may expropriate resources from the firm and as a result, investors will discount the value of dual class firms. In

order to entice investors to hold restricted voting shares and alleviate concerns about expropriation, managers will set a high payout policy. Hence, managers subject the firm to raise capital more frequently and therefore, subject the firm to scrutiny from investment banks and the capital markets in general (Rozeff, 1982 and Easterbrook, 1984). Hence, managers establish a reputation of limited expropriation.

Using a propensity score matched sample of dual and single class concentrated control firms from the S&P 1500 group of companies, the findings are consistent with the extraction of private benefits hypothesis. Dual class firms, on average, tend to retain more wealth within the firm compared to single class companies. I find that cash dividend and total distribution scaled by market capitalization (dividend yield), earnings (dividend payout) and operating cash flow are negatively related to the divergence of voting and cash flow rights. The evidence indicates that the greater the excess voting rights relative to cash flow rights, the more wealth is retained within the company which can be used to pursue private benefits or grow the firm for the future generation of family members. In order to separate the two explanations, I identify firms with controlling shareholders-managers and examine excess compensation of these executives. I find evidence consistent with the extraction of private benefits hypothesis. Excess total compensation paid to controlling shareholders-managers is negatively associated with cash dividend and total distribution. This implies that controlling shareholders-managers retain corporate wealth which is then extracted as excess compensation.

2.0 Literature Review

According to Miller and Modigliani (1961), in a perfect world where there are no taxes, information asymmetry or agency costs, dividend policy does not matter. However, in most countries there are taxes on dividends as well as capital gains. In most countries, capital gains are taxed at a lower rate than dividends. Therefore, investors should prefer capital gains over dividends and hence, companies should not be motivated to pay dividends on this basis. However, firms continue to initiate and pay dividends. This behavior by firms has lead to the "dividend puzzle" (Black, 1976). As a result, several theoretical and empirical studies have attempted to explain why some firms pay dividends and why others choose not to pay dividends. Numerous studies have investigated this issue in the context of taxation and argue in favour of a tax clientele explanation for dividend payments including: Miller and Modigliani (1961), Brennan (1970), Elton and Gruber (1970), Lewellen et al. (1978), Litzenberger and Ramaswamy (1979), Porterba and Summer (1984) and Masulis and Trueman (1988).[43] A second group of studies try to explain dividend policy using information asymmetry arguments including: Fama et al. (1969), Ross (1977), Bhattacharya (1979), Kalay (1980), Aharony and Swary (1980), Miller and Rock (1989), Asquith and Mullins (1983) and DeAngelo and DeAngelo (1990). Another group of studies provide a behavioural explanation for dividend policy. These include: Shefrin and Statman (1984) and Frankfurter and Lane (1984).[44]

[43] For example, Black and Scholes (1974) did not find any support for the tax effects on dividend policy whereas Litzenberger and Ramaswamy (1979) provided evidence relating dividends to pretax returns. Capital gains are more highly valued than cash dividends (Porterba and Summers, 1984) because of differential taxation of the two equity returns.

[44] For a comprehensive review of the literature on dividend policy see Frankfurter and Wood (2000).

In addition, recent studies investigate the agency explanation for dividend policy (La Porta et al., 2000) while others examine dividend policy in a concentrated ownership setting (Faccio et al., 2001; Gugler and Yurtoglu, 2003; Chen et al., 2005 and Mancinelli and Ozkan, 2006). In this paper, I used dividend policy to examine agency problems and the extraction of private benefits in two different ownership structures. I propose three explanations, managerial reputation explanation, private benefits and family legacy, for dividend policy in firms which are controlled by votes (dual class firms) compared to companies which are controlled by significant equity ownership (single class firms with concentrated ownership).

2.1 Agency Theory, Private Benefits and Dividend Policy

2.1.1 Private Benefits and Family Legacy Explanation for Dividend Policy

Outside the U.S., the Berle-Means (1932) notion of separation of ownership and control is an exception and not the norm (La Porta et al., 1999). In fact, concentrated control is very common in most countries, particularly in countries with weak investor protection. Control can occur in the form of dual class ownership structures, pyramids and cross-holdings. By having significant voting power, controlling shareholders have the ability to influence the firm's decisions such as payout policy.

Testing the rent extraction property of dividends, Gugler and Yurtoglu (2003) examine the conflict between large and small outside shareholders using high ownership concentration in Germany. They provide evidence that the voting rights of the largest shareholder significantly reduce payout ratios. Also, the divergence between cash flow and

voting rights significantly lowers payout ratio.[45] Similarly, Mancinelli and Ozkan (2006) find that as the voting rights of the largest shareholder increase, firms make lower dividend payments.[46] They argue that the results support the argument that a higher level of ownership concentration is associated with a higher probability of expropriation of outside shareholders. To the extent that there are private benefits to the largest shareholder for holding larger amounts of cash, lower payouts will increase the ability of the larger shareholders to expropriate the outside minority shareholders. Therefore, when large owners gain nearly full control of the firm, they prefer to generate private benefits of control that are not shared by minority shareholders (Shleifer and Vishny, 1997).

Using a sample of Canadian firms, Eckbo and Verma (1994) develop and test a model where managerial benefits from free cash flow, heterogeneous personal taxes and information asymmetries give rise to internal shareholder conflicts over the dividend decisions. The consensus dividend hypothesis implies that actual cash dividend distribution will vary with relative voting power of shareholder groups having different preferences for dividends.[47] The model predicts that the magnitude of cash dividend increases with corporate or institutional share ownership whereas it decreases with voting power of manager-owners and it is almost zero when managers-owners have absolute voting control. The empirical evidence supports the above predictions.

---

[45] The deviation of voting and cash flow rights occurs through pyramids and cross-holdings. The voting rights of the second largest shareholder have a positive influence on payout. This implies that the second largest shareholder acts as a monitor of the largest shareholder. However, Mancinelli and Ozkan (2006) did not find any relationship between the voting rights of the second largest shareholder and dividend payout.

[46] They studied the relationship between dividend policy and ownership structure of 139 Italian-listed closely-held companies.

[47] According to the dividend consensus hypothesis, actual dividend polices represent a compromise solution where the interests of various heterogeneous shareholder groups are represented by the groups' voting power. The interests of the manager-owner are pitched against the interests of the large corporate/institutional shareholders.

These studies interpret lower dividend payout ratios as evidence of rent extraction or expropriation of minority shareholders. However, low dividend payout ratio can also be consistent with the idea that controlling shareholders retain wealth in order to grow the firms for intergenerational transfer of wealth to heirs or other family members. In addition, if ownership structures like dual class are costly, why do investors voluntarily become minority shareholders of dual class firms, especially in countries with weak legal protection for minority shareholders? Initially, investors may have been induced by higher dividends to invest in these firms.[48] Investors may be compensated for holding restricted voting shares with higher dividends relative to dividends paid to superior voting shareholders. Also, capital gains are another potential reason why investors may hold restricted voting shares in dual class companies. In addition, legal protection in the U.S. may be stringent enough to limit expropriation or extraction of private benefits and hence, investors are more willing to hold restricted voting shares in this market.

Examining dividend policy in family firms, Chen et al., (2005) provide evidence of a negative relationship between family ownership (up to 10%) and dividend policy and a positive relationship between ownership (10%-35%) and dividend yield for small capitalization firms in Hong Kong.[49] They interpret their findings as an indication that controlling shareholders are using dividends as a way to extract resources because dividends

[48] The evidence that dual class share structure is detrimental to minority shareholders is somewhat mixed. For example, Partch (1987) compares managerial ownership before and after the creation of a class of limited voting common stock for 44 publicly traded firms between 1962 and 1984, and examines whether the event affects the wealth of current shareholders. He argues that there is no evidence that current shareholders are harmed by the creation of limited voting common stock. Similar evidence is provided by Ang and Megginson (1989) and Cornett and Vetsuypens (1989). On the other hand, Jarrell and Poulsen (1988) find significant, negative abnormal stock price returns at the announcement of the dual-class recapitalization. In the case of Canada, Jog and Riding (1986) provide similar evidence.

[49] Chen et al. (2005) examine ownership concentration as the fraction of total company shares outstanding held by the controlling family. They investigate the relationship between ownership and dividend policy for a group of family-controlled firms in Hong Kong. They did not examine how the divergence of voting and cash flow rights affect dividend policy.

make up a disproportionately large part of the income they derive.[50] They also argue that small firms are subject to less scrutiny by investors and these firms may be using dividend policy as a means to extract resources. Alternatively, their results are consistent with the argument that outside investors anticipate potential expropriation and therefore, demand higher payouts from firms with potentially the largest agency conflict. I can distinguish between these alternative explanations by examining dual class companies compared to single class concentrated control companies. Since controlling shareholders in dual class firms attain control using votes and not cash flow rights, evidence of higher dividend payouts would be consistent with the argument that outside investors anticipate potential expropriation and hence, demand higher payouts.

2.1.2 Managerial Reputation Explanation for Dividend Policy

According to La Porta et al. (2000), the agency approach does not rely on the assumptions of Miller and Modigliani (1961) when explaining dividend policies. First, the investment policy of firms cannot be viewed as independent from the firm's dividend policy. Payouts can reduce cash flow available to invest in poor NPV projects. Second, the allocation of profits to all shareholders on a pro rata basis cannot be taken for granted. It does not allow for the possible diversion of resources by insiders at the expense of minority shareholders. Therefore, dividend payments can be seen as a mechanism to reduce agency costs. Dividend payments help to alleviate agency conflicts between managers and shareholders because paying dividends and subsequently raising funds in the capital markets

[50] In fact, an executive in position of the CEO and Chairman received 14 times the dividend income relative to their cash salary. Also, the average CEO who was not the Chairman received 4 times the dividend income relative to their cash salary.

serve as a disciplinary mechanism (Rozeff, 1982 and Easterbrook, 1984) [51] By raising capital, firms are subjected to scrutiny by investment banks, regulators and the capital market as a whole. Born and Rimbey (1993) and Moh'd, Perry and Rimbey (1995) provide evidence to support Rozeff (1982) and Easterbrook (1984) hypotheses. Also, Jensen (1986) argues that higher dividend payments reduce agency costs of "free cash flow" by preventing managers from using excess cash to undertake low return projects or "pet" projects which benefit managers rather than shareholders.

Examining firms from 33 countries, La Porta et al., (2000) test two competing agency explanations of dividend policy, the outcome model versus the substitution model of dividends explanation.[52] They provide evidence to support the outcome agency model of dividends. In particular, they show that firms in common law countries have higher payouts.[53] They argue that investors in countries with good legal protection use their legal power to extract dividends from firms especially when investment opportunities are poor. However, it is not clear whether the outcome or substitution model of dividend policy is dominant in firms with ownership structures that allow for the expropriation of minority shareholders. Shareholders can use their legal power to force firms to pay dividends thereby

[51] Rozeff (1982) argues that dividend payments are part of the firm's optimal monitoring/bonding package and they serve to reduce agency costs This implies that firms will choose a level of dividend to minimize agency and transactions costs

[52] The first explanation views dividend policy as an outcome of legal protection Shareholders use their legal power to force firms to pay dividends thereby disgorging any excess cash This can be achieved by voting for directors who offer better dividend policies, selling shares to potential hostile raiders or by suing companies that spend too lavishly on activities that benefit insiders only The second explanation argues that dividends can act as a substitute for legal protection According to the substitute model, insiders interested in issuing equity in the future pay dividends to establish a reputation for decent treatment of minority shareholders Therefore, dividends play an important role in establishing a reputation of limited expropriation La Porta et al , (2000) provide several examples where shareholders have successfully forced firms to pay dividends such as Chrysler and Velcro Industries

[53] Countries with a common law origin tend to have better legal protection of minority shareholders

disgorging any excess cash. This, in theory, can effectively limit the extraction of private benefits.

Furthermore, Faccio et al. (2001), using cross-country data from Europe and Asia, show that investors appear to be more conscious of expropriation within tightly controlled pyramidal groups.[54] To offset investor's concerns, higher dividends are paid by corporations affiliated with such groups especially those exhibiting a wider discrepancy between ownership and control. This is consistent with the managerial reputation explanation for dividend policy in firms with concentrated control. On the other hand, they provide evidence that investors seem to be less conscious of expropriation in corporations that are loosely affiliated within groups in a pyramid structure (control links exceed 10% but not 20%).

In a corporation with low cash flow to control rights, dividend payments are expected to be low since controlling shareholders seek to retain corporate resources (Faccio et al., 2001). However, a rational investor, perceiving risk of expropriation, will attach a lower value to the shares of these corporations and will be less willing to supply capital. Dividend policy can address this concern. Firms with low ownership rights relative to control rights can refrain from expropriation by committing to a high dividend policy and hence, reduce cash flow that may be potentially expropriated.

2.2 Why study dual class share structures of firms in the U.S.?

Dual class structures are more complex compared to single class firms in the U.S. It is also a more convenient way of transferring corporate control to heirs of controlling

[54] Control occurs mainly through group affiliation in the form of pyramids, cross-holdings and reciprocal holdings. In their sample, using the 10% ownership cut off, 56% of the European firms are controlled by families compared to 45% in Asia. Also, 15% has no controlling shareholder in Europe whereas 20% are widely held in Asia.

shareholders with a small proportion of wealth invested compared to single class companies with concentrated ownership. In addition, the protection of minority shareholder rights in the U.S. is much greater than several European and Asian countries where concentrated control is more prevalent (La Porta et al., 1998). Hence, expropriation or rent extraction by the controlling shareholder may be more difficult in the U.S. Therefore, the costs of expropriation may be much higher in the U.S. and hence, using dividend policy to expropriate shareholder wealth may not be as common. In addition, the SEC disclosure requirements ensure that information relating to voting rights, accounting information and executive compensation is properly disclosed and easily accessible to investors. This makes controlling mechanisms, such as multiple voting share structures, more visible compared to pyramid structures with several complex layers which are used to the control company.

3.0 Hypotheses, Methodology and Data

3.1.0 Hypotheses

Several studies argue that dual class ownership structure fosters managerial entrenchment and that controlling shareholders have incentives and opportunities to extract private benefits of control. Dual class share structure allows for separation of voting and cash flow rights. This separation enables the controlling shareholder to make decisions that provide them with private benefits without facing the proportionate cash flow consequences that they would in a single class firm. The divergence of cash flow and voting rights leads to lower accountability which is consistent with entrenchment (Harris and Raviv, 1988).

Therefore, controlling shareholders may set low dividend payouts and extract resources in other ways such as excess compensation. This argument leads to the hypothesis below.

H1: *Dividend payout for dual class firms with a high degree of concentrated control will have a lower payout policy compared to single class firms.*

Alternatively, dual class firms serve to retain the "family legacy". Accordingly, dual class controlling shareholders may retain resources in order to grow the company since the wealth of several generations is tied up in the company. As a result, founding families represent a special class of large shareholders that may potentially have unique incentive structures and a strong voice (Anderson et al., 2003). Also, since dual class firms tend to be family-controlled firms, family integrity and strong feelings of identity may result in family managers seeking to achieve the firm's goal over their individual goals (Davis, Schoorman and Donaldson, 1997 and Corbetta and Salvato, 2004). The firm may be passed on to the family's next generation and therefore, it is important to pursue long-term oriented business strategies such as, investing in R&D. Firm survival is important since a founding family may view the firm as an asset to bequest to family members and their dependents rather than consuming wealth (Casson, 1999; and Anderson et al., 2003). As a result, controlling shareholders in dual class firms are more likely to maximize firm value and therefore, are less likely to extract wealth from the firm for their own benefits. Therefore, firms that are family controlled may retain resources in order to grow the firm by undertaking long-term value enhancing projects that are beneficial to several generations of family members.

A competing explanation is the managerial reputation explanation. Investors, knowing that controlling shareholders have the ability to extract private benefits, will tend to discount the value of dual class firms relative to the value of single class firms with concentrated ownership. Therefore, in order to entice investors to hold restricted voting

shares and alleviate investors' concern about expropriation, controlling shareholders can commit to a high dividend payout policy. By paying higher dividends, managers commit the firm to raise capital more frequently and hence, the firm is subjected to increased scrutiny by investment professionals, investors and the capital market (Rozeff, 1982 and Easterbrook, 1984). Hence, dual class firms are more likely to pay dividends than single class firms and payout larger dividends (Francis et al., 2005).

To distinguish between the private benefits hypothesis and the family legacy explanation for low dividend payout, dual class firms will be sorted into different groups. Firms with controlling shareholders as executives will be classified into one category and those with controlling shareholders who are not executives of the firm but sit on the board of directors, will be classified into another group. This distinction between the two groups of controlling shareholders allow us to separate controlling shareholders who may potentially extract private benefits from those who may find it difficult to extract private benefits in the form of excess compensation because they are not executives. Using an indicator variable to identify firms with executive-controlling shareholders, I am able to test the family legacy and rent extraction hypotheses. Excess executive compensation is one potential channel through which controlling shareholders and managers can extract private benefits (Masulis et al., 2009). If controlling shareholders-executives set a low payout policy in order to extract private benefits, I expect executive compensation in those firms to be greater than those in dual class firms with non-executive controlling shareholders.

> H2: *Dual class firms with controlling shareholders as executives will have a higher level of executive compensation relative to dual class and single class firms where the controlling shareholder is not a part of the executive team.*

3.2.0 Methodology

I will examine the relationship between concentrated control and dividend policy after controlling for relevant cross-sectional factors using several econometric techniques. These include: (i) panel regression controlling industry and year fixed effects and (ii) Tobit regression which is suitable as an econometric technique since dividend distribution is censored from below at zero. The regression equation is specified as follows:

$$Payout\ \ ratio_{i,t} = \beta_0 + \beta_1 Mgmt.Vote_{i,t-1} + \gamma' \mathbf{X} + \varepsilon_{i,t} \quad (1)$$

The dependent variable in equation (1) is corporate distribution to common shareholders over the fiscal year *t*. Based on prior literature, the vector **X** comprises of firm characteristics which have been proven to influence dividend payout ratio. These variables are size (log of sales), financial leverage (total debt-to-total asset), growth (five year geometric mean growth in total assets), capital rationing dummy, performance (return on assets), and institutional ownership (percent of equity held by institutional investors) and $\varepsilon_{i,t}$ is the error term with the usual white noise assumptions.

I measure corporate distribution to common shareholders as follows: cash distribution is defined as cash dividends declared and paid to common shareholders including special cash dividends and total distribution is defined as:

$$Total\ Distribution = cash\ dividends + share\ repurchases \quad (2)$$

Stock repurchase is calculated as common and preferred stock repurchases adjusted for any decreases in preferred stocks (Stephens and Weisbach, 1998 and Banyi et al.,

2008).[55] Both measures of corporate distribution are scaled by operating cash flow, after taxed earnings (dividend payout) and market capitalization (dividend yield). The primary reason for using several ratios is to insulate our overall findings from potential biases that may arise due to accounting flexibility or manipulations.

To test whether divergence of voting and cash flow rights influence corporate distribution, I construct a voting leverage ratio as follows: Management voting leverage $(Mgmt\ Vote) = \frac{\%\ of\ total\ votes\ controlled\ by\ management\ and\ directors}{\%\ of\ total\ equity\ held\ by\ management\ and\ directors}$. If the private benefits/rent extraction hypothesis is correct, then I expect management voting leverage to be negatively related to dividend payout. However a negative relationship is also consistent with the preservation of family wealth for future generations. If the rational expectation hypothesis is correct, then management voting leverage will be positively related to payout. In terms of the control variables, debt can be used to curb agency costs, and expropriation, by limiting the amount of resources that can be paid as dividends (Jensen, 1986 and Francis et al., 2005). Therefore, financial leverage (debt-to-asset) is expected to be negatively related to dividend payout. In addition, institutional investors can act as a monitor and hence, reduce the need for high payout as a disciplinary mechanism. However, institutional investors can also force managers to pay out more of the corporate resources as dividends and raise capital in the external capital markets. Therefore, the effects of institutional investors on dividend payout can be positive or negative.

[55] Banyi et al (2008) find that Compustat purchase of common and preferred stocks (item #115) minus changes in the value of preferred stocks is the best estimate of actual repurchases This measure is usually not offset by either concurrent sales of stocks through equity offering or exercise of employee stock options unlike the CRSP measure of monthly decline in shares outstanding (alternative approach to estimate share repurchases)

Following Farinha (2003), I define growth as the geometric mean growth in total assets over the previous five year period.[56] It is expected to be negatively related to dividend payout. In addition, firms facing difficulties in raising capital in the external market may limit their payouts. Therefore, I have to control for the effects of this potential capital rationing behavior by firms on dividend payout. As a result, I construct a capital rationing dummy variable. Following Faccio et al. (2001), I compute the average increase in capital stock (excludes reserves and retained earnings) plus financial debt as a ratio of sales. I then take a five year average of this ratio in order to smooth capital rationing which may be due to transitory factors such as, the business cycle. The capital rationing dummy variable is equal to 1 if the ratio is below the sample median and the company's growth rate is above the sample median, otherwise it is set equal to 0. It is expected to be negatively related to dividend payout.

Business risk or fixed operating costs may affect corporate distribution. As a result, firms will retain more of their earnings since retained earning is the least costly method of financing. An increase in risk profile of the firm can result in an increase in financing costs. Therefore, risk (beta) is expected to be negatively associated with dividend payout. In addition, larger and more profitable firms are more likely to pay higher dividends and thus retain less cash within the firm. Hence, profitability (ROA) and size (log of sales) are expected to be positively related to dividend payout.

In order to distinguish between the extraction of private benefits hypothesis and the family legacy hypotheses, I estimate equation (3). Following Zingales (1995) and Masulis et al. (2009), I estimate equation (3) using firm characteristics and governance variables that

[56] I replace asset growth with growth rate in sales as a measure for the firm's growth rate and the results are similar.

have been proven to explain CEO executive compensation and extract the residuals as a measure of excess CEO total compensation. I then use the excess compensation from equation (3) to test the extraction of private benefits hypothesis by estimating equation (4) below:

$$Ln(Compensation)_{j,t} = \alpha + \sum_{k=1}^{5} \eta_k Firm\ Characteristics_{k,j,t-1} + \sum_{k=1}^{8} \delta_k Governance_{k,j,t-1} + \varepsilon_{j,t} \quad (3)$$

where *Ln(Compensation)* is the natural logarithm of CEO total compensation for firm *j* at year *t*. Firm characteristics include: size, profitability, growth, risk and financial leverage. The governance variables are as follows: board size, percentage of independent, busy and grey directors, percentage of institutional ownership, CEO tenure, CEO-Chairman duality and percentage of family members on the board of directors.[57]

To test the second hypothesis that controlling shareholder-executives of dual class firms extract excess compensation compared to single class closely-held firms, the following Tobit regression specification is estimated:

$$\begin{aligned} Payout\ Ratio_{i,t} = {} & \beta_0 + \beta_1 (EC_{i,t} \times ExcessComp_{i,t} \times Mgmt.Vote_{i,t-1}) + \beta_2 (EC_{i,t} \times Mgmt.Vote_{i,t-1}) \\ & + \beta_3 (ExcessComp_{i,t} \times Mgmt.Vote_{i,t-1}) + \beta_4 (EC \times ExcessComp)_{i,t} \\ & + \beta_5 Mgmt.Vote_{i,t-1} + \beta_6 Family\ Director_{i,t} + \beta_7 EC_{i,t} + \beta_8\ Excess\ Comp._{i,t} \\ & + \gamma' \mathbf{X} + \varepsilon_{i,t} \end{aligned} \quad (4)$$

where EC is a binary variable equal to 1 if the controlling shareholder is the CEO or President of the firm and 0 otherwise, and $EC \times ExcessComp \times Mgmt\ Vote$ is an interaction term

[57] CEO-Chairman duality is a dummy variable equal to 1 if the CEO is also the chairman and zero otherwise.

which is used to test the second hypothesis. It is expected to be inversely related to dividend payouts. Hence, if controlling shareholders-executives are extracting resources (excess compensation) from the firm which they controlled with votes, I expect the dividend payout ratio to be lower than in firms where the controlling shareholder is not an executive. In addition, family director which is the percentage of family members on the board of directors is included as a control variable. It is expected to be negative and significant if the firm is retaining wealth to grow the firm and preserve wealth for future generations rather than extracting resources (family legacy).[58] I include management voting leverage and excess total compensation so that our interaction term does not merely pick up the effects of excess voting rights as well as the influence of excess total compensation on dividend payout. The dividend policy will alternatively be defined as dividend-to-market capitalization (dividend yield), dividend-to-earnings (dividend payout) and dividend-to-cash flow ratio. The vector, **X** contains a set of control variables as defined in equation (1).

3.3.0 Data

3.3.1 Sample Construction

The dataset examined in this research is constructed using a variety of sources. To construct a sample of U.S. dual class firms, I retrieve a list of firms with dual class share structure from Corporate Library for 2005-2007. Corporate Library identifies all firms with dual class common shares as a takeover defense mechanism during this period. I extend this list of dual class firms to 2001 using a list of dual class IPOs and a list of dual class firms

[58] I replace family director with a binary variable equal to 1 if the firm is a family firm and zero otherwise. The results are qualitatively the same.

used in Gompers et al. (2010).[59] The list of 1,910 dual class firms over the period of 2001-2007 is merged with Execucomp database to determine whether compensation data is available for these firms. Execucomp database contains executive compensation data for the top executives representing the S&P 1500 group of companies. For each dual class company with compensation data, I retrieve proxy statements from the Securities and Exchange Commission (SEC) website and check the proxy statement for each firm in the sample to ensure that they are in fact, dual class companies. Next, using proxy statements, I collect voting rights per share and the number of superior voting and restricted voting shares owned by the largest shareholders and management and directors as a group.

For each firm, I collect accounting data from Compustat. I retrieve annual firm-level information such as cash dividends, purchase of common and preferred shares, total assets, sales, long-term debt, common equity and operating income. In addition, I collected several governance variables and equity ownership data from Corporate Library and Execucomp. These include the number of directors, outside related directors and unrelated directors. I use proxy statements, the firm website and internet search engines such as Lexus Nexus and Google to identify family executives and family directors. I then calculate the percentage of family members who are directors of the board. In order to complete the set of control variables I collect stock return data from CRSP. I obtain monthly returns to estimate beta and annual returns to compute standard deviation. Finally, I collect CEO total compensation (TDC1) from Execucomp.

[59] A list of dual class IPO is available on Jay Ritter's IPO website. Andrew Metrick generously provided the list of dual class companies used in their study.

3.3.2 Propensity Score Matching

The list of dual class companies is matched with a list of single class firms with concentrated ownership using propensity score matching. Propensity score matching methods were developed in Rosenbaum and Rubin (1983), Heckman and Robb (1986) and Heckman et al. (1998). Propensity score matching has become a popular matching technique applied to studies of the financial markets (see Hillion and Vermaelen, 2004 and Villalonga, 2004) which allows for matching using a larger number of characteristics and hence, reducing or eliminating potential bias. The greater the overlap in all characteristics of the treated and control groups, the more comparable the groups are and the smaller the bias (Heckman et al., 1997 and Heckman et al., 1998).

Using a propensity score algorithm, I estimate a probit model of the determinants of dual class structure and compute a propensity score for each firm based on several firm and governance characteristics. The propensity score is then used to match each dual class firm with a similar single class company. The following firm and governance characteristics are used in the matching exercise: equity ownership of the largest shareholder, sales, industry, return on asset, annual stock return, beta, standard deviation of annual returns, market-to-book, debt-to-asset, sales growth, board size, proportion of independent directors, busy directors, grey directors, institutional ownership, company age, R&D-to-sales, capex-to-total asset and family firms. This matching exercise results in a final sample of 792 dual class firm-years over the period of 2001-2007. This represents an average of 113 dual class firms. The final matched sample is made up of 1,584 firm-year observations.

4.0 Results

4.1.0 Descriptive Statistics

Table 1 summarizes the data used in the regression. The last column in Table 1 shows the test statistics for the difference in mean and median for the two samples. In the dual class sample, the largest shareholder owns an average of 22.5% of the equity stake compared to 57.8% of the voting rights. Management and directors as a group, control 58.3 % of the total votes compared to 24.9% of the equity stake. The disparity between voting and cash flow rights is at the heart of the agency problems associated with dual class ownership structure.

Table 1 shows that dual class firms pay significantly lower cash dividends and total distribution as a ratio of market capitalization (dividend yield) or earnings (dividend payout) compared to single class companies. For example, dual class firms pay 20.2% of their earnings as cash dividends compared to single class companies with concentrated control which pay 24.9% of their earnings to common shareholders. In terms of total distribution, dual class companies seem to repurchase fewer shares compared to single class closely-held firms with concentrated control. One possible explanation is that controlling shareholders of dual class companies retain resources in order to extract private benefits.

One possible reason for holding restricted voting shares is the higher dividends paid to those shareholders relative to superior voting shareholders. In the sample of dual class firms, 13.5% of these firms pay preferential dividends to shareholders of restricted voting shares. This is a form of compensation for the lack of voting rights of restricted voting

shares. Typically, restricted voting shareholders receive at least 10% more in dividends paid than superior voting shareholders.[60]

As for specific characteristics, Table 1 shows that the dual class sample and the matching single class concentrated ownership sample are very similar in terms of size, risk (beta), performance (ROA), financial leverage (D/A) and growth. The tests for mean (median) difference are insignificant for these variables. The mean (median) size of dual class firms in the sample is $4.9 billion ($1.5 billion) compared to $4.7 billion ($1.6 billion) for single class companies. Similarly, the mean (median) return on assets for the dual class sample is 9.68% (8.87%) compared to 9.57% (9.06%) for matching single class companies. Based on the summary statistics, it appears that the matching procedure is reasonable since the two samples are similar on several other dimensions such as risk, profitability, financial leverage and growth.

Superior voting shares of dual class firms are often held by insiders and in most cases superior voting shares are not traded. Hence, ownership of restricted voting shares by institutions limits their voting power. Therefore, if voting rights are an important determinant of ownership, then institutional investors are less likely to hold a significant proportion of equity in dual class companies. In fact, institutional ownership is lower in dual class companies with the mean holdings of 16.9% compared to mean ownership of 21.5% in single class firms. The difference in mean (median) is negative and significant at the 1% level.

---

[60] Preferential dividends paid to restricted voting shareholders can range from 4% to 100% more than dividends paid to superior voting shareholders. For example, Haverty Furniture in its proxy statement states that common stock has a preferential dividend rate of at least 105% of the dividend paid on class A common stock (superior voting shares). However, the actual difference in dividend paid is 8% for fiscal year 2007. Claire Stores Inc, in fiscal year 2006, paid a total of $0.40 per share on our common stock and $0.20 per share on our Class A common stock (superior voting shares).

Dual class firms are often family firms (83.2%) with several family members serving as officers and directors. In fact, 15.8% of all directors in dual class firms are family members compared to 5.6% in similar single class companies. Since dual firms are frequently managed by family members, one possible explanation for the high retention rate in dual class firms is the family legacy explanation.

4.2.0 Regression Analysis

Table 2 presents the results of fixed effects and Tobit regression estimation for each of the three measures of cash dividend on management voting leverage and several firm specific factors. Management voting leverage is negatively related to cash dividend ratio in all the regression specification. The coefficients are negative and significant at either the 1% or 5% level except for cash dividend as a ratio operating cash flow which is significant at the 10% level in the Tobit specification. This finding is consistent with prior studies such as Gugler and Yurtoglu (2003) and Mancinelli and Ozkan (2006).[61] The results are consistent with the extraction of private benefits hypothesis. The greater the divergence of voting and cash flow rights, the lower the dividend payout. Controlling shareholders are retaining wealth which can be used to pursue private benefits. However, the results provided in Table 2 are also consistent with the family legacy explanation. A large proportion of dual class firms are family controlled and therefore, it is possible that controlling shareholders are retaining wealth in order to preserve and grow the firm for future generations of family members.

[61] These studies use the voting rights of the largest shareholder as a measure of concentrated control. Deviation of voting and cash flow rights predominantly occur through the use of pyramid structures or cross-holdings.

In terms of the firm specific factors, the sign of the coefficients are consistent with prior studies. Several of the firm specific variables are significant across the various measures for payout ratios. The capital rationing variable is negative and significant in all three measures of cash dividend ratio. The evidence is consistent with previous studies, such as Faccio et al. (2001). This implies that firms facing difficulties raising capital will tend to retain more resources by limiting their payout. Similarly, I find that firms with higher growth rates will pay lower dividends. This finding is consistent with the results provided by prior studies, such as Farinha (2003) and Mancinelli and Ozkan (2006). Since internal financing is the least costly form of financing, firms with growth opportunities are likely to retain earnings in order to exploit future growth potential. In terms of risk, firms with higher risk (beta) tend to pay lower dividends. This is consistent with conventional wisdom that risk increases borrowing costs and therefore, firms tend to retain more earnings. The negative and significant coefficient for the risk variable corroborates previous studies, such as Farinha (2003) and Bhatacharyya et al. (2008). Other control variables including size (log of sales), performance (ROA) and institutional ownership are significant.

In Table 3, I present regression results for total distribution on management voting leverage and a set of firm specific control variables. In both the Tobit and Fixed effects estimation, management voting leverage is negative and significant for all three measures of total distribution. The results are also economically significant. Using estimate from the Tobit regression, a one standard deviation change in management voting leverage resulted in a 5.81% decrease in total distribution as a proportion of earnings. The evidence for total distribution presented in Table 3 is consistent with both the extraction of private benefits and

the family legacy hypotheses. In addition, firm specific characteristics generally have the expected sign.

In order to distinguish between the extraction of private benefits and family legacy hypotheses, I first identify all firms with controlling shareholders as the CEO or President. If the extraction of private benefits hypothesis is correct then I expect controlling shareholders-CEOs to extract private benefits in the form of excess executive compensation. In the sample, 59.9% of dual class firms have a controlling shareholder-CEO. In comparison, 19.4% of single class firms have a controlling shareholder-CEO.

Panel A of Table 4 presents summary statistics of cash dividend and total distribution (scaled by market capitalization, earnings and cash flow) for a combined sample of dual and single class firms. It breaks the sample into firms with a controlling shareholder-CEO versus those without a controlling shareholder-CEO. For both the cash dividend and total distribution, firms with a controlling shareholder-CEO tend to pay out less cash than firms without a controlling shareholder-CEO. The tests for difference in mean and median are negative and significant. This implies that firms with a controlling shareholder-CEO retain more wealth within the firm which can be used either to extract private benefits or to grow the firm for future generations. To evaluate the latter explanation, we compare the capital expenditure-to-sales or capital expenditure-to-asset ratios as proxies for growth opportunities. Firms with controlling shareholder-CEOs invest less in capital expenditure as a proportion of sales or total asset compared to firms without controlling shareholder-CEOs. Thus, the family legacy explanation of low dividend payout is not supported.

Panels B and C of Table 4 decompose the sample further and show that the lowest shareholder payouts are in dual class firms with controlling shareholder-CEOs. Panel B

shows that dual class firms with a controlling shareholder-CEO have lower payout ratios than dual class firms without a controlling shareholder-CEO. Panel C shows that dual class firms with a controlling shareholder-CEO have lower cash distributions than single class firms with a controlling shareholder-CEO. Thus, controlling shareholder-CEOs in dual class firms tend to distribute the least cash to their outside shareholders. As discussed below, we find a link between this low payout and excess executive compensation of the dual class controlling shareholder-CEOs.

Table 5 presents the Tobit regression results for cash dividends. The interaction term, $EC \times ExcessComp \times Mgmt.Vote$, is negative and significant for all of the various measures of cash dividend ratios. This evidence is consistent with the prediction of the extraction of private benefits of control hypothesis. The results imply that the higher the excess compensation in firms with controlling shareholders-executives and with greater divergence of voting and cash flow rights the less cash dividends are distributed. These executives institute lower payout policies in order to retain wealth to pursue private benefits in the form of excess total compensation. Management voting leverage is negative and significant for two of the three of the cash payout ratio measures (dividend yield and dividend payout ratio). In addition, all of the firm specific variables generally have the expected sign based on previous studies such as Faccio et al. (2001), Farinha (2003) and Mancinelli and Ozkan (2006). For example, growth is negative and significant at the 1% level for all three measures of cash payout ratio. Table 6 reports the results for total distribution. The coefficient of the interaction term between controlling shareholders-executives and excess CEO total compensation is negative and significant for total

distribution-to-market capitalization and total distribution-to-earnings. This provides additional support for the extraction of private benefits of control explanation.

To provide further evidence of the extraction of private benefits, I analyze a sub-sample of family firms only. If the family legacy hypothesis is correct, then controlling shareholders-family executives are not expected to extract excess compensation in family firms. However, if the extraction of private benefits hypothesis is correct, then controlling shareholders-executives are expected to extract excess compensation and therefore distribute less cash dividends or repurchase less shares. The results are presented in Table 7. Excess compensation paid to controlling shareholders-executives is negative and significant for cash dividends and total distribution. This implies that the higher the excess compensation paid to family members who are executives, the lower the corporate distribution. This finding is consistent with the prediction of the extraction of private benefits hypothesis for dividend policy. Finally, I examine a sub-sample of dual-class family firms only. The results presented in Table 8 are consistent with the extraction of private benefits explanation.

4.3.0 Robustness

Following Faccio et al. (2001), I computed industry adjusted cash dividends and total distribution ratios. I first computed for each SIC industry, the median cash dividend or total distribution scaled by market capitalization, earnings or cash flow. Then the corporation's cash dividend and total distribution as a ratio of market capitalization, earning or cash flow is the difference between the corporation's dividend or total distribution ratio and the industry median ratio. In Table 9, I report the results using industry adjusted cash dividend and total distribution ratios. The results are similar to those presented in Tables 2

and 3. As a further robustness check, I excluded all firms in the financial and utilities industries.[62] The results are similar to those presented in Tables 2 and 3.

4.4.0 Simultaneity and Two-Stage Least Square Estimation

The identification assumption is crucial to the causal interpretation of the findings above which is that variation in the ownership structure and management voting leverage is unrelated to unobserved factors which influence dividend policy. Eckbo and Verma (1994) examine the possibility that the firm's dividend policy and ownership are determined simultaneously. They find that dividend yield decreases with the voting power of owners-managers and it increases with the voting power of institutional shareholders but the opposite is not true. They argue that the direction of the causality appears to run from voting power to dividend policy. However, it is possible that some unobserved factors correlate with changes in control structures that affect dividend policy. Hence, the regression estimates are likely to be biased and inconsistent due to simultaneity. In order to address the potential simultaneous processes determining dividend policy and ownership structure or omitted variable bias, a two stage least square estimation technique is utilized. The first stage is estimated using a panel regression.

$$Mgmt.Vote_{j,t} = \alpha + \psi_1 Beta + \psi_2 Financial\ Leverage_t + \psi_3 Q_t + \psi_4 Name_t + \psi_5 Media_t + \psi_6 Size_t + \psi_7 payout + \varepsilon_{j,t} \quad (5)$$

where beta is estimated using the previous 5 years of monthly returns, financial leverage(debt/total asset) and Q is the Tobin's Q ratio.[63] Name is a binary variable equal to

[62] Financial and utilities firms that belong to SIC 6000-6999 and 4900-4999 were excluded from the sample.

1 if the firm name is the same as an individual's name. Media is a dummy variable equal to 1 if the firm is in the media industry.[64] Size is defined as the natural logarithm of sales.

Using the predicted management voting leverage from equation (5), I estimate equation (6) using Tobit regression technique because cash dividend and total distribution ratios are censored from below at zero.

$$Payout\ \ ratio_{i,t} = \beta_0 + \beta_1 Pred.Mgmt.\ Vote_{i,t-1} + \gamma' \mathbf{X} + \varepsilon_{i,t} \quad (6)$$

where *Pred.Mgmt.Vote* is the predicted management voting leverage from equation (5) above and the vector **X** contains several control variables such as size, financial leverage, growth, capital rationing dummy, performance and institutional ownership. The results are reported in Table 10. The estimated coefficients for predicted management voting leverage and control variables are similar to those presented in Tables 2 and 3.

5.0 Chapter Summary and Conclusions

It is argued that concentrated ownership and control have a significant impact on agency costs. Ownership concentration can lead to alignment of interest of managers and shareholders. Hence, there is less need for monitoring by shareholders and therefore, lower agency costs. However, ownership concentration can also lead to different types of agency problems such as, conflict of interest between controlling shareholders and minority shareholders. In the case of dual class firms, the resulting monitoring costs may be greater

---

[63] I used leverage, size, beta and Tobin's Q as determinants of management voting leverage following Lins (2003) and Smith et al., (2009).

[64] A firm is defined as a media firm if it belongs to SIC codes 2710-11, 2720-21, 2730-31, 4830, 4832-33, 4840-41, 7810, 7812 and 7820. Gompers et al., (2010) show that name and media variables are important predictors of dual class ownership structure. Therefore, I include a name and media variable in estimating equation 15.

than single class firms with concentrated control since there are two groups of minority shareholders (minority shareholders who hold superior voting shares and minority shareholders who hold restricted voting shares). In addition, a greater extraction of private benefits is possible compared to single class companies with concentrated ownership due to the divergence of voting and cash flow rights associated with dual class ownership structure.

I analyze a sample of dual class and single class S&P 1500 firms during the period 2001-2007 and provide evidence in support of one of the three explanations of dividend policy in a concentrated control setting. First, the managerial reputation explanation states that in order to alleviate concerns related to expropriation, dual class firms set a high payout policy. By paying out higher dividends, managers commit the firm to raise capital more frequently and hence, the firm is subjected to increased scrutiny by investment banks and the capital markets in general (Rozeff, 1982 and Easterbrook, 1984). Second, the extraction of private benefits hypothesis predicts that dual class ownership may foster managerial entrenchment. The separation of voting and cash flow rights enables controlling shareholders to undertake decisions which provide them with private benefits without facing the proportionate cash flow consequences that they would have in a single class company with concentrated control. Therefore, they set lower payout policies because they can extract resources in other ways such as excess compensation. Third, the family legacy explanation states that, since a large fraction of dual class firms are family controlled, controlling shareholders may set a lower dividend policy in order to retain resources which are used to grow the company for future generations of family members.

The empirical results show that dual class ownership structure is negatively associated with dividend policy. The test of mean (median) difference indicates that dual

class firms pay less cash dividend and total distribution using various measures of cash dividend and total distribution ratios (cash dividend and total distribution scaled market capitalization, earnings and cash flows). This implies that the type of concentrated control matters. The regression tests (Tobit estimation and panel regressions with industry and year fixed effects) confirm my univariate findings. The greater the divergence between voting and cash flow rights, the lower the cash dividend and total distribution. This is consistent with the extraction of private benefits and the agency problems associated with dual class share structure. It is also consistent with the family legacy hypothesis. Therefore, I examine excess total compensation of controlling shareholders-executives in order to distinguish between the two explanations for lower dividend policy and the results are consistent with the extraction of private benefits hypothesis. Further, excess compensation paid to a controlling shareholder-CEO in a firm with a larger divergence of voting rights relative to cash flow rights is negatively associated with dividend policy.

6.0 References

Aharony, J., & Swary, I. (1980), Quarterly dividend and earnings announcements and stockholders' returns: An empirical analysis, *Journal of Finance*, 35, 1-12

Anderson, R.C., Mansi, S.A., and Reeb, D.M., (2003), Founding family ownership and the agency cost of debt, *Journal of Financial Economics*, 68, 263-285

Ang, J.S., and Megginson, W.L., (1989), Restricted voting shares, ownership structure and market value of dual-class firms, *Journal of Financial Research*, 12, 301-318

Asquith, P. & Mullins, D. (1983), The impact of initiating dividend payments on shareholders' wealth, *Journal of Business*, 56, 77-95

Baker, H.K., Powell, G., & Veit, E. T. (2002), Revisiting the dividend puzzle. Do all the pieces now fit? *Review of Financial Economics*, 11, 241-262

Banyi, M. L., Dyl, E. D., and Kahle, K. M., (2008), Errors in estimating share repurchase, *Journal of Corporate Finance*, 14, 460-474

Bebchuk L.A., Kraakman R., and Triantis G.G. (2000), Stock pyramids, cross-ownership and dual-class equity: The mechanisms and agency costs of separating control from cash flow rights. In Randall K. Morck (ed), Concentrated Corporate Ownership. Chicago: The University of Chicago Press.

Berle, A. and Means, G. (1932), The modern corporation and private property, New York: Macmillan.

Bhattacharya, S. (1979), Imperfect information, dividend policy and "the bird in hand" fallacy, *Bell Journal of Economics,* 10, 259-270

Black, F., (1976), Dividend puzzle, *Journal of Portfolio Management*, 2, 5-8

Black, F., and Scholes, M., (1974), The effects of dividend yield and dividend policy on common stock prices and returns, *Journal of Financial Economics*, 1, 1-22

Born, J. & Rimbey, J. (1993), A test of the Easterbrook hypothesis regarding dividend payments and agency costs, *Journal of Financial Research*, 46, 251-60

Brennan, M. (1970), Taxes, market valuation and financial policy. *National Tax Journal*, 23, 417-429

Casson, M., (1999), The economics of the family firms, *Scandinavian Economic History Review*, 47, 10-23

Chen, Z., Cheung, Y., Stouraitis, A. and Wong, A. (2005), Ownership concentration, firm performance and dividend policy in Hong Kong, *Pacific-Basin Finance Journal*, 13, 431-449.

Cheung, Y., Stouraitis, A., and Wong, A.W.S. (2005), Ownership concentration and executive compensation in closely held firms: Evidence from Hong Kong, *Journal of Empirical Finance*, 12, 511-532

Cho, M., (1998), Ownership structure, investments and the corporate value: An empirical analysis, *Journal of Financial Economics*, 47, 103-121

Constantinides, G. M., (1983), Capital market equilibrium with personal tax, *Econometrica*,51, 611-36

Corbetta, G., and Salvato, C., (2004), Self-serving or self-actualizing? Models of man and agency costs in different types of family firms: A commentary on comparing the agency costs of family and non-family: conceptual issues and exploratory evidence, *Entrepreneurship Theory and Practice*, 28, 335-354

Cornett, M.M., and Vetsuypens, M.R., (1989), Voting rights and shareholder wealth: The issuance of limited voting common stock, *Managerial and Decision Economics*, 10, 175-188

Correia da Silva, L., Goergen M., & Renneboog, L., (2004), Dividend policy and corporate governance, New York: Oxford University Press Inc

Davis, J.H., Schoorman, F.D., and Donaldson, L. (1997), Toward a stewardship theory of management, *Academy of Management Review*, 22, 20-47

DeAngelo H., DeAngelo, L., and Skinner, D.J., (1996), Reversal of fortune: Dividend signaling and the disappearance of sustained earnings growth, *Journal of Financial Economics*, 40, 341-371

DeAngelo, H., & DeAngelo, L., (1990), Dividend policy and financial distress: An empirical investigation of troubled NYSE firms, *Journal of Finance*, 45, 1415-31

DeAngelo, H., and DeAngelo, L., (1985), Managerial ownership of voting rights: A study of public corporations with dual-classes of common stock, *Journal of Financial Economics*, 14, 33-70

Demsetz, H., (1983), The structure of the ownership and the theory of the firm, *Journal of Law and Economics*, 26, 375-390

Demsetz, H., and Villalonga, B., (2001), Ownership structure and corporate performance, *Journal of Corporate Finance*, 7, 209-233

Easterbrook, F., (1984), Two agency cost explanations of dividends, *American Economic Review*, 74, 650-659

Eckbo, B.E. and Verma S., (1994), Managerial Shareownership, voting power and cash dividend policy, *Journal of Corporate Finance*, 1, 33-62

Elton, E.J., & Gruber, M.J. (1970). Marginal stockholder tax rates and clientele effects, *Review of Economics and Statistics*, 52, 68-74

Faccio, M., Lang, L.H., and Young L., (2001), Dividend and expropriation, *American Economic Review*, 91, 54-78

Fama, E. F., Fisher, L., Jensen, M. C., and Roll R. W., (1969), The adjustments of stock prices to new information, *International Economic Review*, 10, 1-21

Farinha, J., (2003), Dividend policy, corporate governance and the managerial entrenchment hypothesis: An empirical Analysis, *Journal of Business Finance and, Accounting*, 30, 1173-1209

Francis, J., Schipper K. and Vincent L., (2005), Earnings and dividend informativeness when cash flow rights are separated from voting rights, *Journal of Accounting and Economics*, 39, 329-360

Frankfurter, G. M., & Wood Jr. B.G., (2002), Dividend policy theories and their empirical tests, *International Review of Financial Analysis*, 11, 111-138

Frankfuter, G. M., and Lane, R.W., (1984), The rationality of dividends, *International Review of Financial Analysis*, 1, 115-130

Grossman, S. and Hart, O., (1988), One share-one vote and the market for corporate control, *Journal of Financial Economics*, 20, 175-202

Gugler, K., and Yurtoglu B. B., (2003), Corporate governance and dividend pay-out policy in Germany, *European Economic Review*, 47, 731-758

Harris, R., and Raviv, A., (1988), Corporate control contests and capital structure, *Journal of Financial Economics*, 20, 203-235

Hermalin, B.E., and Weisbach, M. S., (1991), The effects of board composition and direct incentives on firm performance, *Financial Management*, 21, 101-112

Holderness, C., and Sheehan, D.P., (1985), Raiders or saviors? The evidence on six controversial investors, *Journal of Financial Economics*, 14, 555-579

Jarrell, G.A., and Poulsen, A., (1988), Dual-class recapitalization as antitakover mechanisms: The recent evidence, *Journal of Financial Economics*, 20,129-152

Jensen, M. C, (1986), Agency cost of free cash flow, corporate finance and takeovers, *American Economic Review*, 76, 323-329

Jensen, M. C., and Meckling, W. H., (1976), Theory of the firm: Managerial behavior, agency costs and ownership structure, *Journal of Financial Economics*, 3, 305-360

Jog, V. M., and Riding, A. L., (1986), Price effect of dual-class shares, *Financial Analyst Journal*, 86, 58-66

Kalay, A., (1980), Signaling, information content and the reluctance to cut dividends, *Journal of Financial and Quantitative Analysis*, 15, 855-67

Kowalewski, O., Stetsyuk, I., and Talavera, O., (2008), Does corporate governance determine dividend payouts in Poland? *Post-Communist Economies*, 20, 203-218

Krivogorsky, V., (2006), Ownership, board structure, and performance in continental Europe, *The International Journal of Accounting,* 41, 176-197

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., and Vishny, R., (1998), Law and finance, *Journal of Political Economy*, 106, 1113-55

La Porta, R., Lopez-de-Silanes, F., and Shleifer, A., (1999), Corporate ownership around the world, *Journal of Finance*, 54, 471-517

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., and Vishny, R., (2000), Agency problems and dividend policies around the World, *Journal of Finance,*55,1-33.

Lewellen, W., Stanley, K., Lease, R., & Schlarbaum, G. (1978). Some direct evidence of the dividend clientele phenomenon, *Journal of Finance*, 33, 1385-1399

Litzenberger, R., and Ramaswamy, K., (1979), The effects of taxes and dividends on capital asset prices: Theory and empirical evidence, *Journal of Financial Economics*, 7, 163-95

Long, J., (1978), The market valuation of cash dividends: A case to consider, *Journal of Financial Economics*, 6, 235-264

Mancinelli, L., and Ozkan, A., (2006), Ownership structure and dividend policy: Evidence from Italian firms, *The European Journal of Finance*, 12, 265-282

Masulis, R.W., and Trueman, B., (1988), Corporate investment and dividend decisions under differential personal taxation, *Journal of Financial and Quantitative Analysis,* 23, 369-386

Masulis, R.W., Wang, C., and Xie, F., (2009), Agency problems at dual class companies, *Journal of Finance,* 64, 1697-1727

Maury, B., (2006), Family ownership and firm performance: Empirical evidence from Western European corporations, *Journal of Corporate Finance*, 12, 321-341

McConaughy, D. L., Walker, M. C., Henderson, G. V., and Mishra, C.S., (1998), Founding family controlled firms: Efficiency and value, *Review of Financial Economics*, 7, 1-19

Mikkelson, W. H., and Partch, M. M., (1997), The decline of takeovers and disciplinary managerial turnover, *Journal of Financial Economics*, 44, 205-228

Miller, M., and Modigliani, F., (1961), Dividend policy, growth and the valuation of shares, *Journal of Business*, 34, 411- 433

Miller, M., and Rock, K., (1985), Dividend policy under asymmetric information, *Journal of Finance*, 40, 1031-1051

Miller, M., and Scholes, M., (1978), Dividend and taxes, *Journal of Financial Economics*, 6, 333-364

Miller, M., (1986), Behavioral rationality in finance: The case of dividends, *Journal of Business*, 59, S451-S468

Moh'd, M., Perry, L., and Rimbey, J. (1995), An investigation of the dynamic relationship between agency theory and dividend policy, *Financial Review*, 30, 367-85

Morck, R., Shleifer, A., and Vishny, R., (1988), Management ownership and market valuation: An empirical analysis, *Journal of Financial Economics*, 20, 293-315

Nenova, T., (2003), The value of corporate voting rights and controls: A cross-country analysis, *Journal of Financial Economics*, 68,325-357

Partch, M., (1987), The creation of a class of limited voting common stock and shareholder wealth, *Journal of Financial Economics*, 18, 313-339.

Perez-Gonzalez, F., (2006), Inherited control and firm performance, *America Economic Review*, 96, 1559-1588

Porterba, J., and Summers, L., (1984), New Evidence that taxes affect the valuation of dividends, *Journal of Finance*, 39, 1379-415

Ross, S. A., (1977), The determinants of financial structure: The incentive-signalling approach, *Bell Journal of Economics,* 8, 23-40

Rozeff, M. S., (1982), Growth, beta and agency costs as determinants of dividend payout ratios, *Journal of Financial Research*, 5, 249-259

Shefrin, H. M., and Statman, M., (1984), Explaining investor preference for cash dividends, *Journal of Financial Economics*, 13, 253-282

Shleifer, A., and Vishny, R., (1997), A survey of corporate governance, *Journal of Finance*, 52, 737-784

Short, H., Zhang, H., and Keasey, K., (2002), The link between dividend policy and institutional ownership, *Journal of Corporate Finance*, 8, 105-122

Stephens, C. P., and Weisbach, M. S., (1998), Actual share reacquisitions in open-market repurchase programs, *Journal of Finance*, 53, 313-333

Stulz, R., (1988), Managerial control of voting right: Financing polices and the market for corporate control, *Journal of Financial Economics*, 20, 25-54

Villalonga, B., and Amit, R., (2006), How do family ownership, control and management affect firm value?, *Journal of Financial Economics*, 80, 385-417

Waller Jr., W.T., (1989), The concept of habit in economic analysis, *Journal of Economic Issue*, 22, 113-126

Woolridge, J., (1983), Dividend changes and security prices, *Journal of Finance*, 38, 1607-1615

Zeckhouser R.J., and Pound, J., (1990), Are large shareholders effective monitors? An investigation of share ownership and corporate performance. In R. Glenn Hubbard (ed), Asymmetric information, corporate finance and investment. Chicago: The University of Chicago Press.

Zingales, L., (1995). What determines the value of corporate votes? *The Quarterly Journal of Economics*, 110, 1047-1073

Table 1: Descriptive statistics

Cash flow rights is defined as the percentage of equity owned by the largest shareholder or management and directors. Voting rights is the percentage of votes held by the largest shareholder or management and directors. Management voting leverage (Mgmt. Vote) is the percentage of total votes controlled by management and directors divided by the percentage of total equity held by management and directors, size (natural logarithm of sales), financial leverage (total debt divided by total assets), performance (ROA=EBIT divided by total assets), risk (beta is estimated using the CRSP equally weighted index and the previous five year monthly stock returns), growth is the geometric mean growth in total assets over the previous five year period, institutional ownership (percentage of shares held by institutional investors) and family director is the percentage of family members on the board of directors. Cash dividend is cash dividends plus special cash dividends paid to all common shareholders. Total distribution is defined as cash dividends plus share repurchases. Significance level at the 1%, 5% and 10% is indicated as *, **, and ***, respectively. Test for difference in mean is the t-test and test for difference in median is the Wilcoxon signed-rank test.

	Dual Class			Single Class			Test for difference in Means	Test for difference in Medians
	Mean	Median	Std Dev.	Mean	Median	Std Dev.		
Ownership Characteristics								
Cash Flow Rights -Largest Shareholder %	22.50	18.20	16.50	23.60	19.20	13.20	-0.71	-0.62
Voting Rights - Largest Shareholder %	57.80	54.80	25.70	23.60	19.20	13.20	34.33***	15.75***
Cash Flow Rights - Management & Directors %	24.90	19.30	15.60	17.10	16.50	14.10	14.21***	4.47***
Voting Rights - Management & Directors %	58.30	57.30	25.20	17.10	16.50	14.10	44.25***	15.82***
Management Voting Leverage (Mgmt. Vote)	3.01	2.42	2.15	1.00	1.00	0.00	58.60****	82.55***
Distribution Characteristics								
Cash Dividend/Market Value %	0.95	0.56	1.77	1.31	0.74	3.31	-2.64***	-2.88***
Total Distribution/Market Value %	3.15	1.60	8.32	4.31	1.95	12.39	-2.17**	-1.89*
Cash Dividend/Earnings %	20.15	8.28	38.00	24.92	7.23	58.65	-1.91*	0.66
Total Distribution/Earnings %	57.74	27.67	79.17	71.62	34.07	99.45	-3.05***	-1.99**
Cash Dividend/Cash Flow %	19.12	3.24	45.24	17.60	4.49	40.87	0.70	-1.24
Total Distribution/Cash Flow %	42.31	12.09	69.62	55.00	19.10	94.15	-3.03***	-3.34***
Preferential Dividend Treatment of Restricted Voting Shares								
Firms with Preferential Treatment %		13.50			N/A		N/A	N/A
Dividend Paying Firms %		65.03			56.8		N/A	N/A

Table 1 Cont'd

	Dual Class			Single Class			Test for difference in Means	Test for difference in Medians
	Mean	**Median**	**Std Dev.**	**Mean**	**Median**	**Std Dev.**		
Firm Characteristics								
Size (Sales)	4917.45	1523.90	14597.23	4653.87	1629.00	15302.38	0.78	-0.89
Financial Leverage (D/A)	21.61	20.34	18.10	21.81	20.82	18.96	-0.58	-0.28
Performance – (Ret) %	12.61	8.35	34.87	10.80	7.45	38.52	2.18**	1.58
Performance – (ROA)%	9.75	8.87	8.81	9.57	9.06	9.30	0.86	-0.04
Risk – (Beta)	0.99	0.77	0.81	1.06	0.85	0.81	-1.46	-1.63
Growth % - (Total Asset)	9.98	6.67	15.61	9.37	6.46	16.64	1.07	1.08
Institutional Ownership %	16.92	13.60	15.66	21.49	18.71	14.96	-13.24***	-15.65***
Family Directors %	15.80	12.50	12.73	5.62	0.00	10.60	34.83***	37.86***

Note: The number of observations for the dual class sample is 792 firm-year and 792 firm-year for the single class closely-held sample. Earnings are defined as earnings after taxes and interest expenses. Cash flow is equal to net operating cash flow.

Table 2: Regression of dividend payout on management voting leverage

$Payout\ \ ratio_{i,t} = \beta_0 + \beta_1 Mgmt.Vote_{i,t-1} + \gamma' \mathbf{X} + \varepsilon_{i,t}$

The dependent variable is cash dividends plus special cash dividends (Div.) paid to common shareholders scaled by market value of equity (dividend yield), earnings (dividend payout) and operating cash flow. Management voting leverage (Mgmt. Vote) is the percentage of total votes controlled divided by the percentage of total equity held by management and directors. **X** is a vector of control variables including: capital rationing (the capital rationing dummy variable is equal to 1 if the average increase in capital stock plus financial debt as a ratio of sales is below the sample median and the company's growth rate is above the sample median, otherwise it is set equal to 0), performance (ROA=EBIT divided by total assets), growth is the geometric mean growth in total assets over the previous five year period, risk (beta is estimated using the CRSP equally weighted index and the previous five year monthly stock returns), financial leverage (total debt divided by total assets), size (natural logarithm of sales) and institutional ownership (percentage of shares held by institutional investors). T-statistics are reported below the estimated coefficients. Significance levels at the 1%, 5% and 10% are indicated as *, **, and ***, respectively.

	Tobit	**Fixed Effects**	**Tobit**	**Fixed Effects**	**Tobit**	**Fixed Effects**
Dependent Variable:	**Div. / Mkt. Cap.**	**Div. / Mkt. Cap.**	**Div. / Earnings**	**Div. / Earnings**	**Div. / Cash Flow**	**Div. / Cash Flow**
	Estimates	**Estimates**	**Estimates**	**Estimates**	**Estimates**	**Estimates**
	t-statistics	**t-statistics**	**t-statistics**	**t-statistics**	**t-statistics**	**t-statistics**
Mgmt. Vote	-0.001	-0.001	-0.021	-0.015	-0.006	-0.004
	-3.83***	-5.12***	-2.56**	-3.04***	-1.68*	-1.98**
Capital Rationing	-0.004	-0.004	-0.123	-0.109	-0.066	-0.099
	-3.29***	-5.88***	-2.46**	-3.60***	-3.09***	-3.71***
Performance	0.018	0.006	0.232	-0.137	0.310	0.029
	3.31***	1.89*	1.05	-1.05	3.26***	0.26
Growth	-0.028	-0.008	-0.866	-0.194	-0.304	-0.080
	-7.41***	-5.27***	-5.77***	-3.03***	-4.93***	-1.45
Risk	-0.009	-0.003	-0.273	-0.067	-0.132	-0.060
	-11.74***	-8.75***	-8.95***	-4.14***	-10.02***	-4.26***
Financial Leverage	-0.002	-0.001	-0.198	0.063	-0.131	-0.054
	-0.66	-0.77	-1.82*	1.17	-2.78***	-0.90
Size	0.003	0.001	0.064	0.011	0.019	0.007
	8.23***	6.71***	4.93***	1.23	3.40***	1.02
Institutional	-0.013	-0.008	-0.435	-0.203	-0.279	-0.260
Ownership	-4.20***	-4.01***	-3.31***	-2.48**	-4.91***	-3.62***
Intercept	-0.001	0.008	0.030	0.324	0.131	0.401
	-0.17	4.40***	2.26**	4.51***	2.62***	6.39***
Industry and Year Effects	No	Yes	No	Yes	No	Yes
LR Chi-Square	415.5 ***	n/a	70.64***	n/a	273.68***	n/a
F-statistics	n/a	35.68***	n/a	9.31***	n/a	7.15***
R-squared	0.143	0.155	0.085	0.056	0.188	0.036
Observations	1584	1584	1398	1398	1496	1496

Note: The R-squared for the Tobit regression is the square of the correlation between the model's predicted values and the actual values.

Table 3: Regression of total distribution

$$Payout\ \ ratio_{i,t} = \beta_0 + \beta_1 Mgmt.Vote_{i,t-1} + \gamma' \mathbf{X} + \varepsilon_{i,t}$$

The dependent variable is the total distribution (cash dividends + repurchases) to common shareholders scaled by market value of equity (dividend yield), earnings (dividend payout) and operating cash flow. Management voting leverage (Mgmt. Vote) is the percentage of total votes controlled divided by the percentage of total equity held by management and directors. **X** is a vector of control variables including: capital rationing (the capital rationing dummy variable is equal to 1 if the average increase in capital stock plus financial debt as a ratio of sales is below the sample median and the company's growth rate is above the sample median, otherwise it is set equal to 0), performance (ROA=EBIT divided by total assets), growth is the geometric mean growth in total assets over the previous five year period, risk (beta is estimated using the CRSP equally weighted index and the previous five year monthly stock returns), financial leverage (total debt divided by total assets), size (natural logarithm of sales) and institutional ownership (percentage of shares held by institutional investors). T-statistics are reported below the estimated coefficients. Significance levels at the 1%, 5% and 10% are indicated as *, **, and ***, respectively.

	Tobit	**Fixed Effects**	**Tobit**	**Fixed Effects**	**Tobit**	**Fixed Effects**
Dependent Variable:	**Total Dist./ Mkt. Cap.**	**Total Dist./ Mkt. Cap.**	**Total Dist./ Earnings**	**Total Dist./ Earnings**	**Total Dist./ Cash Flow**	**Total Dist. /Cash Flow**
	Est. **t-stat**	**Est.** **t-stat**	**Est.** **t-stat**	**Est.** **t-stat**	**Est.** **t-stat**	**Est.** **t-stat**
Mgmt. Vote	-0.002	-0.001	-0.027	-0.021	-0.025	-0.018
	-2.98***	-2.78***	-2.53**	-2.31**	-2.52**	-2.11**
Capital Rationing	-0.008	-0.007	-0.233	-0.194	-0.188	-0.138
	-2.33**	-2.45**	-3.48***	-3.47***	-3.04***	-2.67***
Performance	0.110	0.072	1.743	1.136	1.564	0.697
	7.08***	4.82***	6.01***	4.77***	5.84***	2.74***
Growth	-0.051	-0.035	-0.685	-0.488	-0.503	-0.321
	-6.17***	-5.66***	-4.61***	-4.21***	-3.68***	-2.99***
Risk	-0.004	-0.001	-0.038	0.042	-0.034	0.021
	-2.02**	-0.42	-1.05	1.43	-1.02	0.78
Financial Leverage	-0.023	-0.018	-0.903	-0.525	-0.629	-0.416
	-2.88***	-2.68***	-6.08***	-4.19***	-4.59***	-3.58***
Size	0.005	0.004	0.078	0.048	0.031	0.005
	5.41***	4.50***	4.38***	3.19***	1.87*	0.34
Institutional	-0.012	-0.008	-0.168	-0.118	-0.322	-0.265
Ownership	-1.30	-0.98	-0.94	-0.79	-1.95*	-1.91*
Intercept	0.001	0.015	0.221	0.416	0.363	0.606
	0.77	2.05**	1.41	3.18***	2.51**	4.86***
Industry & Year Effects	No	Yes	No	Yes	No	Yes
LR Chi-Square	146.31***	n/a	87.72***	n/a	86.40***	n/a
F-Statistics	n/a	9.26***	n/a	9.12**	n/a	5.36***
R-squared	0.076	0.056	0.056	0.044	0.064	0.036
Observations	1584	1584	1398	1398	1496	1496

Note: The R-squared for the Tobit regression is the square of the correlation between the model's predicted values and the actual values.

Table 4: Descriptive statistics of controlling and non-controlling shareholders-CEOs

Panel A: Controlling shareholder-CEOs vs. non-controlling shareholder-CEOs

	Controlling			Non-Controlling			Test for difference in Mean	Test for difference in Median
	Mean	Median	Std. Dev	Mean	Median	Std. Dev		
Cash Dividend / Market Value %	0.88	0.51	1.22	1.04	0.63	1.29	-2.55**	-2.06**
Total Distribution / Market Value %	2.86	1.59	4.21	4.16	2.25	6.67	-4.40***	-4.42***
Cash Dividend / Earnings %	16.88	7.01	23.47	19.27	10.27	25.23	-1.97**	-1.96***
Total Distribution / Earnings %	37.14	24.57	36.77	46.60	36.77	40.00	-4.86***	-4.35***
Cash Dividend / Cash Flow %	10.78	2.92	18.92	17.27	5.71	26.73	-5.38***	-3.45***
Total Distribution / Cash Flow %	25.49	11.34	32.00	38.80	21.36	39.43	-7.21***	-5.85***
Capex / Sales %	4.98	3.53	5.55	5.52	3.45	6.54	-1.79*	1.26
Capex / Assets %	4.38	3.30	5.51	4.98	3.68	4.85	-2.30**	-0.93

Note: There are 645 controlling shareholder-CEOs and 939 non-controlling shareholder-CEOs

Panel B: Controlling shareholder-CEOs vs. non-controlling shareholder-CEOs in dual and single class firms

Test for difference in mean and median	Dual Class Controlling minus Non-controlling		Single Class Controlling minus Non-controlling	
	Mean	Median	Mean	Median
Cash Dividend / Market Value %	-1.40	-0.88	-1.06	-1.52
Total Distribution / Market Value %	-3.69***	-3.97***	-1.34	-2.02**
Cash Dividend / Earnings %	-0.90	-2.07**	-2.16**	-2.11**
Total Distribution / Earnings %	-3.38***	-3.50***	-2.51**	-2.28**
Cash Dividend / Cash Flow %	-7.09***	-3.64***	-1.13	-1.51
Total Distribution / Cash Flow %	-6.94***	-5.53***	-2.02**	-1.58

Table 4 Cont'd

Panel C: Dual class and single class firms with controlling shareholder-CEOs

	Dual Class			Single Class			Test for difference in Mean	Test for difference in Median
	Mean	Median	Std. Dev		Median	Std. Dev		
Cash Dividend / Market Value %	0.84	0.54	1.13	0.98	0.41	1.47	-1.30	0.55
Total Distribution / Market Value %	2.76	1.58	3.86	3.19	1.64	5.14	-1.15	-0.29
Cash Dividend / Earnings %	14.49	7.96	23.80	16.91	6.15	22.38	-1.98**	1.79*
Total Distribution / Earnings %	34.00	24.85	36.49	37.59	21.87	37.73	-2.18**	1.87*
Cash Dividend / Cash Flow %	10.28	3.01	18.37	12.28	3.64	20.50	-1.96**	-0.17
Total Distribution / Cash Flow %	24.18	8.79	31.72	29.51	17.06	32.63	-2.18**	-2.08**

In the total sample, there are 486 dual class controlling shareholder-CEOs and 159 controlling shareholder-CEOs in single class closely-held.

Table 5: Tobit regression of dividend payout ratios

$$Ln(Compensation)_{j,t} = \alpha + \sum_{k=1}^{5} \eta_k Firm\ Characteristics_{k,j,t-1} + \sum_{k=1}^{6} \delta_k Governance_{k,j,t-1} + \varepsilon_{j,t}$$

$$Payout\ Ratio_{i,t} = \beta_0 + \beta_1(EC_{i,t} \times ExcessComp_{i,t} \times Mgmt.Vote_{i,t-1}) + \beta_2(EC_{i,t} \times Mgmt.Vote_{i,t-1}) + \beta_3(ExcessComp_{i,t} \times Mgmt.Vote_{i,t-1}) + \beta_4(EC \times ExcessComp)_{i,t} + \beta_5 Mgmt.Vote_{i,t-1} + \beta_6 Family\ Director_{i,t} + \beta_7 EC_{i,t} + \beta_8\ Excess\ Comp._{i,t} + \gamma' \mathbf{X} + \varepsilon_{i,t}$$

The dependent variable is cash dividends paid to common shareholders scaled by market value of equity, earnings and operating cash flow. Management voting leverage (Mgmt. Vote) is the percentage of total votes controlled divided by the percentage of total equity held by management and directors. Executive-controlling shareholder (EC) is an indicator variable equal to 1 if the controlling shareholder is the CEO or President and zero otherwise (controlling shareholder is defined as an individual with ownership or control of 15% of the total equity or total voting rights). Excess CEO total compensation (Excess comp.) is the residual from the first equation above where firm characteristics include: size, profitability, growth, risk and financial leverage and governance variables are as follows: board size, percentage of independent, busy and grey directors, percentage of institutional ownership, CEO tenure, CEO-Chairman duality and percentage of family members on the board of directors. **X** is a vector of control variables including: capital rationing (the capital rationing dummy variable is equal to 1 if the average increase in capital stock plus financial debt as a ratio of sales is below the sample median and the company's growth rate is above the sample median, otherwise it is set equal to 0), performance (ROA=EBIT divided by total assets), growth is the geometric mean growth in total assets over the previous five year period, risk (beta is estimated using the CRSP equally weighted index and the previous five year monthly stock returns), financial leverage (total debt divided by total assets), size (natural logarithm of sales) and institutional ownership (percentage of shares held by institutional investors). Significance levels at the 1%, 5% and 10% are indicated as *, **, and ***, respectively.

Dependent Variable:	**Div. / Market. Cap**		**Div. / Earnings**		**Div. / Cash Flow**	
	Est.	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**
EC x Excess Comp. x Mgmt. Vote	-0.0010	-2.05**	-0.0297	-1.99**	-0.0327	-2.48**
EC x Mgmt. Vote	0.0002	0.04	0.0067	0.37	-0.0072	-0.47
Excess Comp. x Mgmt. Vote	-0.0007	-2.52**	-0.0225	-2.37**	-0.0230	-1.69*
EC x Excess Comp.	0.0012	0.92	0.0811	1.44	-0.0612	-1.76*
Mgmt. Vote	-0.0009	-3.01***	-0.0231	-2.25**	-0.0063	-0.77
Family Director	-0.0038	-0.85	-0.0645	-0.38	-0.0765	-0.51
EC	-0.0013	-0.77	-0.0456	-0.72	-0.0003	0.01
Excess Comp.	-0.0028	-4.54***	-0.1067	-3.82***	-0.0695	-2.65***
Capital Rationing	-0.0044	-3.84***	-0.0989	-2.26**	-0.1103	-2.86***
Performance	0.0160	2.54**	0.0142	0.06	0.3090	1.45
Growth	-0.0289	-7.47***	-0.9803	-6.65***	-0.5510	-4.37***
Risk	-0.0093	-12.9***	-0.2718	-10.1***	-0.2517	-10.5***
Financial Leverage	-0.0017	-0.73	-0.1827	-2.03**	-0.2486	-3.09***
Size	0.0008	3.02***	0.0396	4.21***	0.0823	9.79***
Institutional Ownership	-0.0131	-4.41***	-0.3917	-3.49***	-0.3931	-3.93***
Intercept	0.0185	10.04***	0.4155	6.03***	0.0696	1.15
Observations	1584		1398		1496	
LR Chi	452.45***		303.94***		370.80***	
R-squared	0.179		0.103		0.138	

Table 6: Tobit regression of total distribution

$$Ln(Compensation)_{j,t} = \alpha + \sum_{k=1}^{5} \eta_k Firm\ Characteristics_{k,j,t-1} + \sum_{k=1}^{6} \delta_k Governance_{k,j,t-1} + \varepsilon_{j,t}$$

$$Payout\ Ratio_{i,t} = \beta_0 + \beta_1(EC_{i,t} \times ExcessComp_{i,t} \times Mgmt.Vote_{i,t-1}) + \beta_2(EC_{i,t} \times Mgmt.Vote_{i,t-1}) + \beta_3(ExcessComp_{i,t} \times Mgmt.Vote_{i,t-1}) + \beta_4(EC \times ExcessComp)_{i,t} + \beta_5 Mgmt.Vote_{i,t-1} + \beta_6 Family\ Director_{i,t} + \beta_7 EC_{i,t} + \beta_8\ Excess\ Comp._{i,t} + \gamma' \mathbf{X} + \varepsilon_{i,t}$$

The dependent variable is total distribution to common shareholders scaled by market value of equity, earnings and operating cash flow. Management voting leverage (Mgmt. Vote) is the percentage of total votes controlled divided by the percentage of total equity held by management and directors. Executive-controlling shareholder (EC) is an indicator variable equal to 1 if the controlling shareholder is the CEO or President and zero otherwise (controlling shareholder is defined as an individual with ownership or control of 15% of the total equity or total voting rights). Family director is percentage of family members on the board of directors. Excess CEO total compensation (Excess comp.) is the residual from the first equation above where firm characteristics include: size, profitability, growth, risk and financial leverage and governance variables are as follows: board size, percentage of independent, busy and grey directors, percentage of institutional ownership, CEO tenure, CEO-Chairman duality and percentage of family members on the board of directors. **X** is a vector of control variables including: capital rationing (the capital rationing dummy variable is equal to 1 if the average increase in capital stock plus financial debt as a ratio of sales is below the sample median and the company's growth rate is above the sample median, otherwise it is set equal to 0), performance (ROA=EBIT divided by total assets), growth is the geometric mean growth in total assets over the previous five year period, risk (beta), financial leverage (total debt divided by total assets), size (natural logarithm of sales) and institutional ownership (percentage of shares held by institutional investors). Significance levels at the 1%, 5% and 10% are indicated as *, **, and ***, respectively.

Dependent Variable:	**Total Dist. / Market Cap.**		**Total Dist. / Earnings**		**Total Dist. / Cash Flow**	
	Est.	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**
EC x Excess Comp. x Mgmt. Vote	-0.0026	-2.28**	-0.0646	-2.22**	-0.0413	-0.75
EC x Mgmt. Vote	-0.0005	-0.49	0.0208	0.87	-0.0093	-0.42
Excess Comp. x Mgmt. Vote	-0.0014	-2.42**	0.0109	0.89	-0.0181	-1.64
EC x Excess Comp.	-0.0028	-0.95	-0.0855	-1.99*	-0.1324	1.91*
Mgmt. Vote	-0.0011	-1.69*	-0.0230	-1.78*	-0.0184	-1.31
Family Director	-0.0128	-1.11	-0.2384	-0.96	-0.0342	-0.14
EC	0.0011	0.28	-0.0892	-0.98	-0.0933	-1.07
Excess Comp.	-0.0045	-2.31**	-0.0624	-1.68*	-0.0793	-2.10**
Capital Rationing	-0.0088	-3.07***	-0.2347	-3.82***	-0.2767	-4.45***
Performance	0.1085	8.15***	1.9587	5.78***	2.0099	5.82***
Growth	-0.0472	-6.38***	-0.6581	-4.27***	-0.3408	-2.19**
Risk	-0.0050	-3.14***	-0.0611	-1.82*	-0.1133	-3.28***
Financial Leverage	-0.0104	-1.58	-0.6726	-5.21***	-0.5007	-3.47***

Table 6 Cont'd

Dependent Variable:	Total Dist. / Market Cap.		Total Dist. / Earnings		Total Dist. / Cash Flow	
	Est.	**t-stat**	**Est.**	**t-stat**	**Est.**	**t-stat**
Size	0.0028	5.49***	0.1073	7.87***	0.1450	13.03***
Institutional Ownership	-0.0054	-0.73	-0.2012	-1.25	-0.2593	-1.59
Intercept	0.0218	4.58***	0.3799	3.89***	-0.0440	-0.41
Observations	1584		1398		1496	
LR Chi	223.08***		199.91***		326.73***	
R-squared	0.162		0.081		0.082	

Table 7: Tobit regression for a sub-sample of family firms only

The dependent variable is equal to cash dividend or total distribution (cash dividends + share repurchases) to common shareholders scaled by market value of equity, earnings and operating cash flow. Management voting leverage (Mgmt. Vote) is the percentage of total votes controlled divided by the percentage of total equity held by management and directors. Executive-controlling shareholder (EC) is an indicator variable equal to 1 if the controlling shareholder is the CEO or President and zero otherwise (controlling shareholder is defined as an individual with ownership or control of 15% of the total equity or total voting rights). Excess CEO total compensation (Excess comp.) is the residual from equation 3. Capital rationing (the capital rationing dummy variable is equal to 1 if the average increase in capital stock plus financial debt as a ratio of sales is below the sample median and the company's growth rate is above the sample median, otherwise it is set equal to 0). Performance (ROA=EBIT divided by total assets), growth is the geometric mean growth in total assets over the previous five year period, risk (beta is estimated using the CRSP equally weighted index and the previous five year monthly stock returns), financial leverage (total debt divided by total assets), size (natural logarithm of sales) and institutional ownership (percentage of shares held by institutional investors). ***, ** and * denote significance at the 1, 5 and 10 percent levels, respectively.

	Cash Distribution			**Total Distribution**		
Dependent Variable	**Div. / Market. Cap**	**Div. / Earnings**	**Div. / Cash Flow**	**Total Dist. / Market Cap.**	**Total Dist. / Earnings**	**Total Dist. / Cash Flow**
	Estimates	**Estimates**	**Estimates**	**Estimates**	**Estimates**	**Estimates**
	t-statistics	**t-statistics**	**t-statistics**	**t-statistics**	**t-statistics**	**t-statistics**
EC x Excess Comp.	-0.002	-0.097	-0.062	-0.006	-0.158	-0.138
	-2.56**	-3.28***	-2.06**	-2.54**	-3.49***	-2.13**
Mgmt. Vote	-0.003	-0.078	-0.081	-0.002	-0.029	-0.144
	-2.79***	-1.80*	-1.85*	-0.07	-0.41	-1.99**
EC	-0.001	-0.017	-0.014	-0.001	-0.014	-0.027
	-2.99***	-2.49**	-2.05**	-1.46	-1.25	-2.52**
Excess Comp.	-0.001	0.024	0.021	0.001	0.087	0.151
	-1.25	0.94	0.78	0.38	2.24**	2.81***
Capital Rationing	-0.004	-0.112	-0.104	-0.011	-0.304	-0.315
	-3.24***	-2.55**	-2.33**	-3.28***	-4.36***	-4.28***
Performance	0.018	0.454	0.41	0.081	1.467	1.284
	2.41**	1.84*	1.62	4.05***	3.53***	2.94***
Growth	-0.031	-0.980	-0.551	-0.037	-0.587	-0.446
	-6.33***	-5.89***	-3.40***	-3.98***	-3.07***	-2.25**
Risk	-0.009	-0.226	-0.249	-0.006	-0.058	-0.128
	-9.14***	-7.34***	-7.70***	-2.81***	-1.43	-2.99***
Financial Leverage	-0.007	-0.075	-0.173	-0.005	-0.415	-0.433
	-2.23**	-0.78	-1.59	-0.67	-2.72***	-2.70***
Size	0.002	0.026	0.059	0.003	0.102	0.187
	4.36***	2.51**	6.69***	4.12***	6.07***	10.72***

Table 7 Cont'd

	Cash Distribution			Total Distribution		
Dependent Variable	**Div. / Market. Cap**	**Div. / Earnings**	**Div. / Cash Flow**	**Total Dist. / Market Cap.**	**Total Dist. / Earnings**	**Total Dist. / Cash Flow**
	Estimates	**Estimates**	**Estimates**	**Estimates**	**Estimates**	**Estimates**
	t-statistics	**t-statistics**	**t-statistics**	**t-statistics**	**t-statistics**	**t-statistics**
Institutional	-0.013	-0.470	-0.357	-0.011	-0.148	-0.042
Ownership	-3.30***	-3.51***	-2.61***	-1.04	-0.70	-0.19
Intercept	0.010	0.419	0.168	0.018	0.283	-0.085
	2.92***	5.42***	2.01**	3.07***	2.28**	-0.66
Observations	889	874	884	889	874	884
LR Chi	270.82***	198.15***	196.44***	107.48***	126.04***	222.61***
R-squared	0.178	0.137	0.136	0.162	0.106	0.177

Table 8: Tobit regression for a sub-sample of dual class family firms only

The dependent variable is equal to cash dividend or total distribution (cash dividends + share repurchases) to common shareholders scaled by market value of equity, earnings and operating cash flow. Management voting leverage (Mgmt. Vote) is the percentage of total votes controlled divided by the percentage of total equity held by management and directors. Executive-controlling shareholder (EC) is an indicator variable equal to 1 if the controlling shareholder is the CEO or President and zero otherwise (controlling shareholder is defined as an individual with ownership or control of 15% of the total equity or total voting rights). Excess CEO total compensation (Excess comp.) is the residual from equation 3. Capital rationing (the capital rationing dummy variable is equal to 1 if the average increase in capital stock plus financial debt as a ratio of sales is below the sample median and the company's growth rate is above the sample median, otherwise it is set equal to 0). Performance (ROA=EBIT divided by total assets), growth is the geometric mean growth in total assets over the previous five year period, risk (beta is estimated using the CRSP equally weighted index and the previous five year monthly stock returns), financial leverage (total debt divided by total assets), size (natural logarithm of sales) and institutional ownership (percentage of shares held by institutional investors). ***, ** and * denote significance at the 1, 5 and 10 percent levels, respectively.

	Cash Distribution			**Total Distribution**		
Dependent Variable	**Div. / Market. Cap**	**Div. / Earnings**	**Div. / Cash Flow**	**Total Dist. / Market Cap.**	**Total Dist. / Earnings**	**Total Dist. / Cash Flow**
	Est.	**Est.**	**Est.**	**Est.**	**Est.**	**Est.**
	t-stat	**t-stat**	**t-stat**	**t-stat**	**t-stat**	**t-stat**
EC x Excess Comp.	-0.002	-0.118	-0.067	-0.005	-0.223	-0.173
	-1.96**	-3.71***	-2.21**	-2.14**	-4.23***	-2.48**
Mgmt. Vote	-0.001	-0.020	-0.017	-0.001	-0.015	-0.028
	-2.52**	-2.74***	-2.41**	-1.72*	-1.16	-2.60***
EC	-0.002	-0.046	-0.014	-0.001	-0.036	-0.186
	-1.45	-0.92	-0.28	-0.31	-0.42	-2.26**
Excess Comp.	0.010	0.023	0.016	0.001	0.106	0.170
	0.28	0.81	0.59	0.50	2.26**	2.86***
Capital Rationing	-0.001	-0.028	-0.022	-0.003	-0.192	-0.214
	-0.79	-0.57	-0.44	-0.75	-2.24**	-2.62***
Performance	0.010	0.177	0.426	0.063	1.139	1.346
	1.32	0.67	1.62	2.90***	2.36**	2.90***
Growth	-0.031	-0.867	-0.533	-0.044	-0.334	-0.311
	-5.76***	-4.58***	-2.86***	-3.62***	-1.26	-1.25
Risk	-0.008	-0.201	-0.206	-0.003	-0.056	-0.113
	-7.50***	-5.87***	-5.87***	-1.24	-1.13	-2.32**
Financial Leverage	-0.005	-0.073	-0.182	-0.009	-0.364	-0.581
	-1.58	-0.70	-1.56	-1.08	-2.05**	-3.42***
Size	0.001	0.017	0.066	0.004	0.092	0.208
	1.82*	1.44	6.83***	4.71***	4.58***	11.12***

Table 8 Cont'd

	Cash Distribution			Total Distribution		
Dependent Variable	**Div. / Market. Cap**	**Div. / Earnings**	**Div. / Cash Flow**	**Total Dist. / Market Cap.**	**Total Dist. / Earnings**	**Total Dist. / Cash Flow**
	Est.	**Est.**	**Est.**	**Est.**	**Est.**	**Est.**
	t-stat	**t-stat**	**t-stat**	**t-stat**	**t-stat**	**t-stat**
Institutional	-0.006	-0.379	-0.197	-0.009	-0.119	0.040
Ownership	-1.58	-2.65***	-1.40	-0.82	-0.48	0.17
Intercept	0.014	0.450	0.036	0.013	0.275	-0.173
	3.89***	4.95***	0.37	1.78*	1.74*	-1.16
Observations	667	648	656	667	648	656
LR Chi	151.61***	125.51***	139.6***	77.52	78.29***	205.23***
R-squared	0.112	0.124	0.140	0.082	0.086	0.117

Table 9: Tobit regression of industry adjusted cash dividends and total distribution.
The dependent variable is equal to cash dividend or total distribution (cash dividends + share repurchases) to common shareholders scaled by market value of equity, earnings and operating cash flow adjusting of industry median. For example, cash dividend-to-market capitalization (Div./ Market Cap.) is defined as Div./ Market Cap. for each firm minus its SIC industry median Div./ Market Cap. Management voting leverage (Mgmt. Vote) is the percentage of total votes controlled divided by the percentage of total equity held by management and directors, capital rationing (the capital rationing dummy variable is equal to 1 if the average increase in capital stock plus financial debt as a ratio of sales is below the sample median and the company's growth rate is above the sample median, otherwise it is set equal to 0)performance (ROA=EBIT divided by total assets), growth is the geometric mean growth in total assets over the previous five year period, risk (beta is estimated using the CRSP equally weighted index and the previous five year monthly stock returns), financial leverage (total debt divided by total assets), size (natural logarithm of sales) and institutional ownership (percentage of shares held by institutional investors). T-statistics are reported below the estimated coefficient. Significance levels at the 1%, 5% and 10% are indicated as *, **, and ***, respectively.

	Cash Distribution			**Total Distribution**		
Dependent Variable	**Div. / Market Cap.**	**Div. / Earnings**	**Div. / Cash Flow**	**Total Dist. / Market Cap.**	**Total Dist. / Earnings**	**Total Dist. /Cash Flow**
	Est.	**Est.**	**Est.**	**Est.**	**Est.**	**Est.**
	t-stat	**t-stat**	**t-stat**	**t-stat**	**t-stat**	**t-stat**
Mgmt. Vote	-0.001	-0.021	-0.005	-0.001	-0.023	-0.026
	-2.64***	-2.40**	-1.35	-2.58**	-1.99**	-2.33**
Capital Rationing	-0.001	-0.113	-0.054	-0.001	-0.163	-0.166
	-0.92	-2.14**	-2.41**	-0.24	-2.24**	-2.46**
Performance	0.028	0.199	0.322	0.102	1.568	1.499
	4.71***	0.86	3.28***	5.76***	4.99***	5.15***
Growth	-0.035	-0.928	-0.323	-0.043	-0.641	-0.406
	-7.80***	-5.86***	-5.01***	-4.72***	-4.00***	-2.76***
Risk	-0.006	-0.216	-0.103	0.003	0.035	0.018
	-7.35***	-6.96***	-7.71***	1.28	0.89	0.49
Financial Leverage	-0.001	-0.144	-0.145	-0.020	-0.865	-0.597
	-0.36	-2.27**	-2.96***	-2.29**	-5.34***	-3.98***
Size	0.001	0.040	0.008	0.003	0.045	-0.010
	4.06***	2.97***	1.40	2.41**	2.34**	-0.56
Institutional	-0.010	-0.449	-0.277	-0.001	-0.199	-0.392
Ownership	-2.76***	-3.20***	-4.60***	-0.07	-1.01	-2.13**
Intercept	-0.003	0.036	0.128	-0.011	0.161	0.444
	-0.86	0.30	2.47**	-1.17	0.93	2.77***
Observations	1584	1398	1496	1584	1398	1496
LR Chi	417.17***	230.82***	270.23***	150.67***	123.71***	93.42***
R-squared	0.188	0.065	0.133	0.089	0.087	0.075

Table 10: Tobit regression with predicted management voting leverage

The dependent variable is equal to cash dividend or total distribution (cash dividends + share repurchases) to common shareholders scaled by market value of equity, earnings and operating cash flow. Predicted management voting leverage (Pred. Mgmt Vote) is the predicted management voting leverage using equation (5), capital rationing (the capital rationing dummy variable is equal to 1 if the average increase in capital stock plus financial debt as a ratio of sales is below the sample median and the company's growth rate is above the sample median, otherwise it is set equal to 0), performance (ROA=EBIT divided by total assets), growth is the geometric mean growth in total assets over the previous five year period, risk (beta is estimated using the CRSP equally weighted index and the previous five year monthly stock returns), financial leverage (total debt divided by total assets), size (natural logarithm of sales) and institutional ownership (percentage of shares held by institutional investors). T-statistics are reported below the estimated coefficient. Significance levels at the 1%, 5% and 10% are indicated as *, **, and ***, respectively.

	Cash Distribution			**Total Distribution**		
Dependent Variable	**Div. / Market. Cap**	**Div. / Earnings**	**Div. / Cash Flow**	**Total Dist. / Market Cap.**	**Total Dist./ Earnings**	**Total Dist. /Cash Flow**
	Est.	**Est.**	**Est.**	**Est.**	**Est.**	**Est.**
	t-stat	**t-stat**	**t-stat**	**t-stat**	**t-stat**	**t-stat**
Pred. Mgmt Vote	-0.002	-0.045	-0.024	-0.002	-0.032	-0.028
	-3.38***	-4.11***	-2.59***	-2.61***	-2.39**	-2.30**
Capital Rationing	-0.006	-0.125	-0.122	-0.008	-0.234	-0.189
	-2.19**	-2.52**	-2.82***	-2.34**	-3.50***	-3.06***
Performance	0.027	0.196	0.370	0.109	1.728	1.551
	2.35**	0.89	1.92*	7.02***	5.95***	5.79***
Growth	-0.049	-0.857	-0.516	-0.050	-0.683	-0.501
	-6.10***	-5.71***	-4.16***	-6.15***	-4.59***	-3.66***
Risk	-0.014	-0.272	-0.242	-0.004	-0.037	-0.033
	-8.60***	-8.92***	-9.01***	-1.99**	-1.03	-0.99
Financial Leverage	-0.003	-0.210	-0.215	-0.023	-0.908	-0.633
	-0.59	-1.93*	-2.24**	-2.90***	-6.10***	-4.62***
Size	0.005	0.071	0.035	0.005	0.082	0.034
	6.67***	5.42***	3.04***	5.57***	4.55***	2.07**
Institutional	-0.024	-0.444	-0.526	-0.011	-0.145	-0.301
Ownership	-3.50***	-3.41***	-4.58***	-1.14	-0.82	-1.83*
Intercept	-0.009	0.053	0.191	0.011	0.208	0.350
	-1.53	0.46	1.89*	0.04	1.33	2.42**
Observations	1584	1398	1496	1584	1398	1496
LR Chi	255.30***	242.37***	212.02***	148.62***	123.03***	92.42***
R-squared	0.198	0.182	0.185	0.161	0.152	0.145

Chapter 4

The Valuation Effects of Dual Class Structure and Managerial Entrenchment

1.0 Introduction

The separation of voting and cash flow rights in dual class firms allows the controlling shareholder-manager to become entrenched by rendering the market for corporate control ineffective. In the absence of the threat of hostile takeover, controlling shareholders-managers in poorly performing dual class firms face no threat of job dismissal. Ruback (1988) argues that dual class ownership structure may be the most effective universal anti-takeover device ever invented.[65] Concentrated equity ownership in single class firms can also serve to entrench managers. Managers who control a substantial fraction of single class firm's equity may have enough voting power or influence to guarantee their employment with the firm (Morck et al., 1988). However, unlike controlling managers of dual class firms, managers in single class firms with concentrated control still face a risk that they will lose their control if they were to issue substantial amounts of new shares. Thus, the ability to remain entrenched is not as severe for single class managers. This leads to several empirical questions. Do managers in dual class firms display characteristics of entrenchment? Does entrenchment in turn, lead investors to discount the value of dual class firms?

[65] Similarly, Jarrell and Poulsen (1988) argue that dual class structure provides an effective defense against hostile takeovers.

Managerial entrenchment, broadly defined, occurs when managers gain so much power that they are able to use the firm to further their own interests rather than the interests of shareholders (Weisbach, 1988). It is the extent to which managers fail to experience discipline from the full range of corporate governance and control mechanisms, including monitoring by the board and the threat of dismissal or takeover (Berger, et al., 1997). In this research, I define managerial entrenchment more precisely as occurring when the CEO remains on the job longer than an industry peer or a matching company CEO, especially when the CEO's company is performing relatively poorly.

In this essay, I investigate the relationship between dual class share structure, managerial entrenchment and dual class discount. Managerial entrenchment is expected to reduce the value of the firm as there is a lack of discipline on managers to address the poor performance. Several studies provide evidence indicating that dual class firms are discounted compared to single class firms (King and Santor, 2008, Gompers et al., 2010, Smith et al., 2009). Family ownership of dual class firms lead to a 17% discount relative to single class firms (King and Santor, 2008). In addition, Smith et al., (2009) find that the value of dual class companies is discounted relative to single class concentrated control companies. One possible explanation for the dual class discount is managerial entrenchment. Entrenched managers are more likely to extract private benefits of control and therefore, investors are likely to discount dual class firms relative to single class concentrated control companies. In the first essay, I show that dual class executives received excess compensation. Entrenchment allows them to enjoy this excess compensation for a longer time.

In addition to dual class share structure, studies have identified several corporate governance provisions such as staggered boards which allow managers to entrench themselves. Gompers et al., (2003); Bebchuk and Cohen, (2005); Faleye, (2007) and Bebchuk et al., (2009) provide evidence that firms with these provisions are valued less. In this paper I extend their research by showing the link between these corporate governance provisions, dual class discount and managerial entrenchment.

Using a sample of dual class firms and a propensity matched sample of single class companies with concentrated control, I show that CEOs and directors in dual class firms are more entrenched. CEOs and directors of dual class firms tend to have longer tenure compared to their counterparts in single class companies. After adjusting for industry median, dual class CEOs and directors remain on the job longer than those in similar single class companies even when the company is performing relatively poorly. The regression results indicate that investors apply a larger discount on the value of dual class firms which have a greater degree of managerial entrenchment. The results are robust to several proxies of managerial entrenchment. Furthermore, entrenchment is defined in the context of under performance by management and hence, it is important to account for past performance. Therefore, conditional on past poor performance, I show that dual class firms with excess CEO tenure, excess E-index or excess director tenure are discounted more by investors. This implies that investors are aware of the impact of managerial entrenchment in firms with dual class ownership structure.

Studies often assume that managers are also controlling shareholders in firms with concentrated ownership. However, this is not always the case. My data allows me to separate dual class firms into groups where the controlling shareholder or a member of his

or her family is the CEO and those where the controlling shareholder is a member of the board or the Chairman. The evidence from the sub-sample analysis indicates that the greater the degree of managerial entrenchment the larger the dual class discount, especially in firms with poor past performance. However, the results do not differ from the sub-sample of firms where the controlling shareholder is not the CEO. In dual class firms where the controlling share holder is a director or the Chairman, the CEO can become entrenched as long as their interest does not diverge from that of the controlling shareholder. Therefore, the results of the impact of entrenchment on dual class discount are independent of whether the CEO is the controlling shareholder.

2.0 Literature Review and Hypothesis Development

2.1.0 Literature Review

Entrenchment can have adverse effects on management behaviour and incentives (Bebchuk et al., 2009). Managerial entrenchment may result in agency costs to shareholders by allowing poor performing managers to remain on the job and allow for empire-building. Entrenching mechanisms allow managers to pursue their own interests and extract wealth at the expense of outside shareholders. Florackis and Ozkan (2009) provide evidence that firms with high levels of managerial entrenchment exhibit higher agency costs.[66] Other studies provide evidence that firms with entrenched managers significantly underperform, hold large amounts of cash, pay lower dividends, and are less leveraged (Morck et al., 1988

[66] They used the inverse of asset turnover as a measure of agency costs and interpret this ratio as an asset utilization ratio which shows how effectively managers deploy firm assets.

Berger et al., 1997; Gompers et al., 2003; Ozkan and Ozkan, 2004; Hardford et al., 2008 and Khan, 2006).

Studies have argued that entrenchment can also produce benefits to shareholders by reducing the extent to which the threat of a takeover distorts investments in long-term projects (Stein, 1988 and Bebchuck and Stole, 1993). Also, Stulz (1988) argues that entrenching mechanisms allow managers to extract higher acquisition premiums in negotiated transactions. Prior studies such as Wilcox (2002) and Faleye (2007) argue that staggered elections of directors as an entrenching mechanism encourage board independence by reducing the threat that a director who refuses to succumb to management will not be renominated each year.

Managerial entrenchment can occur in several ways, including manager-specific investment, concentrated ownership and control as well as various anti-takeover provisions such as staggered boards. By making corporate investments that fit the expertise of a particular CEO, that CEO can reduce the probability of being replaced, can extract higher wages and larger perquisites from shareholders (Shleifer and Vishny, 1989). For example, Shliefer and Vishny (1989) argue that excessive growth in sales in the direction of the CEOs talents and experience is a means of entrenchment. Long tenured managers, because of manager-specific assets, are more valuable to shareholders compared to an alternative manager. As a result, these managers can negotiate for higher compensation and increase their latitude in running the firm.

Concentrated ownership and control resulting from dual and single class share structure may insulate managers from dismissal even in poorly performing firms. In dual class firms, both internal and external corporate governance mechanisms may be ineffective

in removing poorly performing managers because managers control the firm with a significant proportion of the votes while owning a small fraction of the equity. Furthermore, in both dual and single class firms, there is a greater degree of managerial control and entrenchment of managers as managerial ownership increases (Morck et al., 1988). Therefore, the probability of replacing executives in firms with concentrated ownership and control is significantly reduced. Executives in firms with concentrated ownership and control may display several characteristics of entrenchment such as long tenure in office and compensation that has low sensitivity to performance (Berger et al., 1997). In fact, Morck et al. (1988) argue that entrenchment is not just a consequence of voting power. Some managers, by virtue of their tenure with the firm, status as founder or even personality, can be entrenched.

Managerial equity ownership or voting control makes it more difficult to remove a poorly performing top executive. Denis et al. (1997) find that the probability of turnover is significantly less sensitive to performance when officers and directors own between 5% and 25% of a firm's equity than when officers and directors own less than 5%. Similarly, Huson et al. (2001) provide evidence that the likelihood of forced turnover is negatively related to the CEO fractional ownership. This may be more pronounced in dual class firms since the market for corporate control is virtually ineffective as a disciplinary mechanism as executives often control the firm with a significant proportion of the voting rights and a small fraction of the equity ownership.

In addition to dual class share structure, anti-takeover provisions such as staggered boards and poison pills may serve to entrench managers and therefore, have a negative impact on firm value. Several studies argue that staggered boards can insulate management

from the market for corporate control because of the boards' ability to adopt and maintain poison pills (Bebchuk and Cohen, 2005; Faleye, 2007 Bebchuk et al., 2009). Bebchuk and Cohen (2005) provide evidence that staggered boards are associated with an economically meaningful reduction in the firm value. This result is stronger for firms which establish staggered boards through corporate charter which shareholders cannot amend compared to staggered boards established in the company's by-laws. Similarly, Faleye (2007) shows that staggered boards destroy value by entrenching management and reducing the likelihood of forced CEO turnover. He argues that staggered boards insulate management from market discipline and diminish board accountability. Bates et al. (2008), on the other hand, argue that staggered boards do not change the likelihood that a firm, once targeted, is ultimately acquired. In fact, shareholders of target companies with staggered boards realize bid returns that are equivalent to those of targets with a single class of directors. They provide evidence that staggered boards reduce the likelihood of receiving a takeover bid. However, the economic effect of the bid deterrence on the value of the firm is quite small.

A staggered board is only one of several provisions which may serve to entrench managers. For example, limits to shareholder by-law amendments, golden parachutes and supermajority requirements for mergers can also be considered as entrenching provisions. In fact, Gompers et al., (2003) consider 24 such provisions followed by the Investor Responsibility Research Centre (IRRC) in the construction of their governance index (G-index). However, examining these provisions, Bebchuk, et al. (2009) construct an entrenchment index (E-index) and provide evidence that the E-index level is monotonically associated with reduction in firm valuation during the period 1990-2003.[67]

[67] They use six of the 24 provisions followed by the Investor Responsibility Research Centre which is used to construct the G-index. Four of the six provisions (staggered boards, limits on shareholder amendments of the

2.2.0 Hypothesis

Dual class ownership structure can lead to managerial entrenchment by allowing managers who control a majority of the voting rights in dual class firms to become entrenched. In turn, the more entrenched dual class managers are, the more likely it is that such managers will extract pecuniary and non-pecuniary benefits at the expense of outside shareholders. As a result, investors are expected to apply a greater discount on the value of dual class firms. Several characteristics of managerial entrenchment such as CEO tenure, and directors' tenure are expected to be related to the observed valuation discount of dual class firms. Given this argument, the hypothesis follows:

H1: *The greater the managerial entrenchment, the larger the dual class discount.*

3.0 Methodology and Data

3.1 Methodology

To examine the effects of managerial entrenchment on valuation discount of dual class firms (H1). I estimate equation (1) below. I expect entrenchment proxies to be negatively related to dual class discount, that is, the higher the level of managerial entrenchment, the greater the discount.

---

by-law, supermajority requirement for mergers and supermajority requirements for charter amendments) set constitutional limits on shareholders voting power. The remaining two provisions reduce the impact of market for corporate control (poison pill and golden parachute). They argue that the remaining provisions were uncorrelated with firm valuation.

$$
\begin{aligned}
Dual\,Class\,Discount_{j,t+1} = {} & \alpha + \phi\, Entrenchment_{j,t} + \beta_1\, Excess\,Compensation_{j,t} \\
& + \beta_2 Mgmt.Vote_{j,t} + \beta_3\,(Mgmt.Vote \times Excess\,Cash)_{j,t} \\
& + \beta_4 Excess\,Cash_{j,t} + \beta_5 Financial Leverage_{j,t} \\
& + \beta_6 Conversion Right_{j,t} + \beta_7\, Size_{j,t} + \beta_8 Div.diff_{j,t} + \varepsilon_{j,t} \qquad (1)
\end{aligned}
$$

The dependent variable, *dual class discount*, is computed as the difference in Tobin's Q ratio of dual class firms and their propensity score matched single class concentrated control firms. Alternatively, *dual class discount* is the difference between Tobin's Q ratio of dual class firms and the industry average Q ratio. There are several managerial entrenchment proxies utilized in the specification (1) above. First, *excess CEO tenure* is the difference in tenure for dual class CEOs and their matching counterpart in single class firms with concentrated ownership. The second entrenchment proxy is *industry adjusted CEO tenure (IACEO Tenure)*. It is computed as the difference between tenure of dual class CEOs and the median industry CEO tenure.[68] The third measure, *Excess E-index,* utilizes the E-index which consists of several anti-takeover provisions that may result in managerial entrenchment. *Excess E-index* is the difference between the E-index value of dual class firms and matching single class firms. *Excess G-index* value is also included as an additional control variable. In constructing the *excess G-index*, I subtract the E-index value for each firm from the G-index value and then take the difference between dual class firms' G-index and matching single class firms' G-index.[69] Finally, *industry adjusted directors tenure* (*IADirectors tenure*) is used as a proxy for entrenchment. *IADirectors tenure* is computed as the median tenure per director less the median industry tenure per director.[70] Entrenchment of directors is likely to be more pronounced in dual class firms because the

[68] Using average industry CEO tenure produces similar results.
[69] The G-index is corporate governance index which is constructed using 24 governance provisions followed by Investor Responsibility Research Centre (Gompers et al., 2003).
[70] Using mean tenure per director produces similar results.

controlling shareholders can use their voting power to elect directors who are less likely to act against the interest of the controlling shareholders. Also, Morck et al. (1988) suggest that outside board members are capable of becoming entrenched.

Since excess compensation is not given, I need to find a methodology to measure excess CEO compensation. Thus, following Zingales (1995) and Masulis et al. (2009), I estimate equation (2) using firm characteristics and governance variables that have been proven to explain executive compensation and extract the residuals as a measure of CEO total excess compensation using equation (2).

$$Ln(Compensation)_{j,t} = \alpha_t + \sum_{k=1}^{5} \eta_{t,k} Firm\ Characteristics_{k,j,t-1} + \sum_{k=1}^{8} \delta_{t,k} Governance_{k,j,t-1} + \varepsilon_{t,j,t} \quad (2)$$

where *Ln*(*Compensation*) is the CEO total compensation for firm *j* at year *t*. Total compensation (TDC1) is defined as salary + bonus + other compensation + stock options.[71] Firm characteristics and governance variables are based on prior studies such as Smith and Watts (1992), Core et al. (1999) and Chalmers et al. (2006). Firm characteristics include: size, profitability, growth, risk and financial leverage. The governance variables are as follows: board size, percentage of independent, busy and grey directors, percentage of institutional ownership, CEO tenure, percentage of family members on the board of directors and CEO-Chairman duality dummy variable.[72] It is possible that entrenchment and excess compensation are correlated because entrenched managers have the ability to extract

[71] Other compensation includes the value of restricted stock grants, long term incentive payouts, contributions to pension plans, life insurance premiums, consulting fees and awards under charitable award programs.

[72] A busy director is defined as a director with more than four board memberships and grey directors are defined as outside directors who are related to the company through a transactional relationship.

higher compensation from their firm. However, I examined the correlation between excess compensation and the various proxies for entrenchment. The correlation is relatively low with the highest being 0.07 between excess compensation and industry adjusted CEO tenure (IADCEO tenure).

Following Zingales (1995), conversion right is an indicator variable equal to 1 if superior voting shares can be converted into restricted voting shares and 0 otherwise, market value of equity (size) is used as a proxy for the probability of acquisition and dividend difference (Div. diff) is an indicator variable equal to 1 if the dividend paid or payable to restricted voting shares is greater than that of the superior voting shares and zero otherwise.[73]

3.2 Data

3.2.1 Sample Construction

The dataset used in this research is constructed from a variety of sources. To construct a sample of U.S. dual class firms, I retrieve a list of firms with dual of share structure from Corporate Library for 2005-2007. During this period, Corporate Library identifies all firms with dual class common shares as a takeover defense mechanism for 2005-2007. I extend this list of dual class firms over this period to 2001 using a list of dual class IPOs and a list of dual class firms used in Gompers et al. (2010).[74] The list of 1,910 dual class firms over the period of 2001-2007 is merged with Execucomp database to

[73] In 13.5% of the dual class firms, holders of restricted voting (RV) shares are paid more or will receive more dividends in the future relative to holders of superior voting (SV) shares.

[74] A list of dual class IPO is available on Jay Ritter's IPO website. Andrew Metrick generously provided the list of dual class companies used in their study.

determine whether compensation data is available for these firms. Execucomp database contains executive compensation data for the top executives representing the S&P 1500 group of companies. For each dual class company with compensation data, I retrieve proxy statements from the Securities and Exchange Commission (SEC) website and check the proxy statement for each firm in the sample to ensure that they are in fact, dual class companies. Next, using proxy statements, I collect voting rights per share and the number of superior voting and restricted voting shares owned by the largest shareholders and management and directors as a group.

For each firm, I collect accounting data from Compustat. I retrieve annual firm-level information such as total assets, sales, long-term debt, common equity and operating income. In addition, I collect several governance variables and equity ownership data from Corporate Library and Execucomp. These include the number of directors, outside related directors and unrelated directors. I use proxy statements, firm websites and internet search engines such as Lexus Nexus and Google to identify family executives and family directors. I then calculate the percentage of family members who are directors of the board. In order to complete the set of control variables, I collect stock return data from CRSP. I obtain monthly returns to estimate beta and annual returns to compute standard deviation. Finally, I collect CEO total compensation (TDC1) from Execucomp.

3.2.2 Propensity Score Matching

The list of dual class companies is matched with a list of single class concentrated control firms using propensity score matching. Propensity score matching methods were developed by Rosenbaum and Rubin (1983), Heckman and Robb (1986) and Heckman et al.

(1998). One of the major benefits of propensity score matching is that it can accommodate a larger number of matching variables which can correct for the bias due to systematic differences between the treated and control groups. The greater the overlap in all characteristics of the treated and control groups, the more comparable the groups are and the smaller the bias (Heckman et al., 1997 and Heckman et al., 1998). As a result, propensity score matching has become a popular matching technique applied to studies of financial markets (see Hillion and Vermaelen, 2004 and Villalonga, 2004).

Using a propensity score algorithm, I estimate a probit model of the determinants of dual class structure and compute a propensity score for each firm based on several firm and governance characteristics. The propensity score is then used to match each dual class firm with a similar single class company. The following firm and governance characteristics are used in the matching exercise: equity ownership of the largest shareholder, sales, industry, return on asset, annual stock return, beta, standard deviation of annual returns, market-to-book, debt-to-asset, sales growth, board size, proportion of independent directors, busy directors, grey directors, institutional ownership, company age, R&D-to-sales, capex-to-total asset and family firms. This matching exercise results in a final sample of 792 dual class firm-years over the period of 2001-2007. This represents an average of 113 dual class firms per year. The final matched sample is made up of 1,584 firm-year observations.

4.0 Results

4.1.0 Descriptive Statistics

Table 1 Panel A, reports the descriptive statistics of several different characteristics of managerial entrenchment. There is no difference in mean and median CEO age in dual class firms compared to single class concentrated control companies. Similarly, there is no difference in the mean (median) age of directors in dual and single class companies. The median age of directors in both dual and single class companies is 59 years. The first proxy for managerial entrenchment, CEO tenure, indicates that dual class CEOs tend to remain on the job longer than their matching counterparts in single class firms. The difference is positive and significant as indicated by the tests for difference in the mean and median. Dual class CEOs, on average, retain their position for 5.3 years longer than CEOs in single class firms. This is an indication of managerial entrenchment. Alternatively, since dual class firms have a higher concentration of family involvement, the longer tenure may reflect such involvement. Family CEOs remain longer in their position to give the next generation time to mature enough to succeed them.

Using the second measure of entrenchment, *directors' tenure*, dual class directors have longer tenure compared to directors in single class firms. The average tenure per director in dual class firms is 1.9 years longer than those in single class concentrated control companies. This suggests that controlling shareholders use their voting power to elect and maintain a board of directors who will stay on longer and act in their interest. In Table 1 Panel A, I also report two industry adjusted measures of entrenchment (industry adjusted CEO and directors' tenure). The results indicate that dual class CEOs and directors have a

longer tenure relative to single class CEOs and directors after adjusting for average industry tenure. CEOs in dual class firms serve in this capacity for 5.66 years longer than their industry peers. In comparison, CEOs in single class concentrated control firms serve in this role only 0.51 years longer than their industry peers. This implies that controlling shareholders of dual class firms are using their voting power to remain on the job longer or keep in place a CEO who acts according to the interests of the controlling shareholder. Therefore, CEOs of dual class firms are more likely to be entrenched. Investors, knowing this, are more likely to discount the value of dual class firms relative to single class firms.

The third managerial entrenchment measure, E-index, is lower for dual class firms than for single class concentrated control companies. One possible explanation is that dual class structure is the most effective anti-takeover defense and therefore, dual class firms do not need additional anti-takeover defenses such as classified boards. Bebchuk et al. (2009) argue that holders of superior voting rights might be sufficient to provide incumbents with a powerful entrenching mechanism that renders other entrenching provisions relatively unimportant. Nevertheless, dual class firms typically have 2 anti-takeover provisions which are identified by Bebchuk et al. (2009) as a part of their E-index and may serve to entrench managers.

Conditional on poor past performance, dual class CEOs and directors typically remain on the job longer than their single class counterparts (Table 1, Panel A). The univariate test for difference in mean is statistically significant. CEOs of dual class firms with poor past performance, relative to the industry, remain on the job 8.63 years longer than similar CEOs in single class firms with concentrated ownership. Longer tenure is an indication of managerial entrenchment especially when firms have prior poor performance.

The last two columns in Table 1 Panel B show the test statistics for the difference in means and medians for the two samples. In the dual class sample, the largest shareholder owns, on average, 22.5% of the equity stake compared to 57.8% of the voting rights. Management and directors as a group, control 58.3 % of the total votes compared to 24.9% of the equity stake. In comparison, the largest shareholder in single class firms owns, on average, 23.6% of the equity outstanding. The disparity between voting and cash flow rights in dual class firms is at the heart of the agency problems associated with this type of ownership structure. It can allow managers to become entrenched with a small proportion of the equity capital.

Table 1 Panel C reports descriptive statistics for firm characteristics. Based on the mean and median tests, it is evident that the propensity score matching exercise produces samples of dual and single class firms that are very similar. There is no difference in size (sales), financial leverage (D/A), performance (ROA), risk (beta) and growth (total assets). The tests for mean (median) difference are insignificant for these variables.

4.2.0 Regression Analysis

Table 2 reports the effects of various entrenchment proxies on dual class discount. In this table, dual class discount is computed as the difference in the Q ratio of dual class firms and the Q ratio of propensity score matched single class concentrated control firms. In model (1), entrenchment (excess CEO tenure) is measured as the difference between CEO tenure in a dual class firm and its matching single class firm. The coefficient for *excess CEO tenure* is negative and statistically significant. As expected, the greater the degree of entrenchment, the larger the discount of dual class firms relative to single class companies.

Furthermore, Goyal and Park (2002) show that the probability of CEO turnover is significantly lower when the CEO also serves as the Chairman of the board. Therefore, I include an indicator variable equal to 1 if the CEO is also the Chairman. The coefficient is not statistically significant. This implies that the dual role of CEO and Chairman does not seem to affect dual class discount. I include several other variables affecting the discount such as excess compensation, management voting leverage and interaction between excess cash and management voting leverage. These variables serve as proxies for the extraction of private benefits. All of these variables are significant with the expected sign. Other control variables are based on prior studies such as Zingales (1995).

In model (2), excess CEO tenure (IACEO Tenure) is measured as the difference between CEO tenure in dual class firms and the median industry CEO tenure. This entrenchment proxy is negative and statistically significant as hypothesized above. The entrenchment proxy in Model (3) is excess E-index. The excess E-index is the difference in the E-index value between a dual class firm and its matching single class counterpart. The coefficient is negative and statistically significant at the 10% level. In Model (4), entrenchment is measured using industry adjusted directors, tenure (IADirectors' tenure). The coefficient is negative and significant indicating the greater the entrenchment, the larger the dual class discount. Finally, since the correlation among the various entrenchment proxies are relatively low, I include all the proxies in Model (5).[75] All of the entrenchment variables are negative and significant which confirms my expectation that investors discount the value of dual class firms which appear to have entrenched managers and directors.

[75] The highest correlation is 0.40 between IACEO tenure and IADirectors tenure.

Table 3 reports the results using an alternative measure of dual class discount. It is the difference in Q ratio of dual class firms and the industry average Q ratio. In Models (1) to (5), the entrenchment coefficients are similar in significance levels and magnitude to those reported in Table 2. The control variables proxying for private benefits are all negative and significant. As for the other control variables, they are similar to those reported in Table 2 except for dividend difference which is positive and significant. In these firms, restricted voting shareholders are entitled to receive higher dividends relative to superior voting shareholders. As expected, higher dividends reduce the dual class discount.

4.3.0 Entrenchment Conditional on Past Performance

The prior literature on managerial entrenchment often utilized anti-takeover provisions, executive tenure, and age to proxy for managerial entrenchment (Berger et al., 1997; Yermack, 2006 and Bebchuk et al., 2009). However, age and tenure can also proxy for valuable experience (Norburn and Birley, 1988). Salas (2010) argues that executive tenure conditional on firm performance is a more suitable measure of managerial entrenchment as managers are truly only entrenched when they are not removed in the face of poor relative performance. In light of this argument, it is important to control for firms' prior performance when examining entrenchment. Although, the entrenchment measures utilized in this study are "excess" measures, entrenchment proxies conditional on prior performance will provide a more robust measure of the impact of managerial entrenchment on dual class discount.

Accordingly, I construct two dummy variables based on prior operating performance. The first performance dummy variable (Perdum1) is equal to 1 if dual class

firms' previous 3-year average ROA is less than the ROA of matching single class firms. The second performance dummy variable (Perdum2) is equal to 1 if the firm's 3-year ROA is less than the 3-year industry average ROA. The 3-year average ROA is utilized as a performance in order to eliminate the impact of any transitory effects of operating performance. In addition, Denis and Denis (1995) show that firms with 3-years of prior poor operating performance are more likely to replace their CEO. Similarly, Huson et al. (2001) provide evidence that executive turnover tends to occur when industry adjusted accounting performance has declined and stock returns have recently been negative. Hence, CEOs with long tenure conditional on poor past performance is a clear indication of managerial entrenchment.

Table 4 presents the results of the effects on managerial entrenchment conditional on prior operating performance. I include an interaction term between performance dummy and various proxies for entrenchment. In models (1) and (4), the performance benchmark is based on the matching group of control firms (Perdum1). In models (2), (3) and (5), the performance benchmark is based on the industry average performance (Perdum2).

In models (1) and (3), the performance dummy variables are interacted with excess CEO tenure. The coefficient of the interaction term is negative and statistically significant. This indicates that dual class firms with previous poor performance and greater managerial entrenchment are valued less. In model (2), I use industry as the benchmark for both performance (Perdum2) and CEO tenure (IACEO tenure). The results show that investors apply a larger discount to dual class firms with worse performance relative to the industry and when the CEO remains on the job longer than their industry counterpart. This implies that investors are concerned with managerial entrenchment especially in firms that are

performing poorly. In model (5), I used industry adjusted directors tenure (IADirectors tenure) as the proxy for entrenchment. The results show that firms with poor performance and longer directors' tenure are valued less.

In Table 5, the dependent variable, dual class discount, is computed as the difference between Q ratio of dual class firms and the industry average Q ratio. The results presented in Table 5 are similar to those presented in Table 4. In addition, the interaction term between performance and excess E-index is now significant. Investors apply a greater discount to dual class firms with poor performance and excess E-index. This implies that investors view anti-takeover provisions, which are a part of E-index, as entrenching provisions especially in firms with poor performance.

Studies which examine concentrated ownership often simply assume that managers are also the controlling shareholders. However, this is not always the case. In this study, I am able to identify firms where the controlling shareholder is an executive and those where the controlling shareholder is a director or Chairman of the board. This is important because it is easier to identify cases of entrenchment when the CEO is the controlling shareholder or a family member of the controlling shareholder. However, identifying cases of entrenchment of outside CEOs in firms with concentrated ownership is a bit more challenging. Nevertheless, controlling shareholders are less likely to hire an outside CEO who will openly oppose them or act against the interest of the controlling shareholder. An outside CEO can become entrenched as long as their interest does not diverge from the interest of the controlling shareholder.

In Table 6, I provide evidence for managerial entrenchment in dual class firms where the controlling shareholder is also an executive. The results are similar to those

presented in Table 4. Longer tenure of controlling shareholders-executives provides robust evidence that investors are aware of the impact of managerial entrenchment on the extraction of private benefits and agency costs. Controlling shareholders-executives are more likely to be entrenched because they control dual class firms with majority voting rights.

Table 7 presents the results for dual class firms where the controlling shareholder is not a member of the executive team. In these firms, the controlling shareholders are typically members of the board of directors. The results are similar to those presented in Table 6 only for models (2) and (5). By separating the sample into firms with controlling shareholders as CEOs and those with non-controlling shareholders as CEOs, I present further evidence of the impact of managerial entrenchment on dual class discount.[76] In addition, the results presented in Tables 2 to 5 are independent of whether the executives are also the controlling shareholders. Executives who are not controlling shareholders can also be entrenched because controlling shareholders are more likely to hire executives who are less likely to act against the interest of the controlling shareholders.

4.4.0 Robustness

Potential endogeneity concerns are common in corporate governance literature. Simultaneity and reverse causality can bias our results. Managerial entrenchment can lead to dual class discount but it is unlikely that dual class discount influences managerial entrenchment. Nevertheless, I utilized a two stage least square technique as a robustness check. In the first stage, I estimate a model for the determinants of entrenchment. The

[76] In firms with non-controlling shareholder as CEOs, the controlling shareholders are usually Chairmen or directors of the board.

following regressors are included: dual class dummy, E-index, G-index (excluding the E-index value) and management voting leverage. Dual class ownership structure is arguably the most effective anti-takeover defense mechanism which can allow managers to become entrenched. Similarly, corporate governance provisions which make up the E-index such as poison pills may also render the market of corporate control ineffective and hence, lead to entrenchment. In addition, the voting power of superior voting shares in dual class firms can allow managers to become entrenched. Therefore, I utilized these variables in order to predict management entrenchment. The predicted variable is then used to explain the documented dual class discount.

In the second stage, I include the predicted entrenchment using the estimated coefficients from the first stage. I utilized three measures of entrenchment including: CEO tenure, industry adjusted CEO tenure and industry adjusted directors' tenure. The results of the second stage estimation are presented in Table 8. I created interaction terms between the performance dummy and the predicted entrenchment variables. The performance dummy is equal to 1 if a dual class firm's previous 3-year ROA is less than the ROA of a matching single class firm with concentrated ownership and zero otherwise. In models (1) to (3), the dependent variable, dual class discount, is the difference in Q ratio of dual class firms and their matching single class counterpart. The interaction term in each model is negative and significant. This is consistent with the above hypothesis and with the results presented in Table 4. In models (4) to (6), the dependent variable is the difference between the Q ratio of dual class firms and the industry average Q ratio. The results are similar to those presented in Table 5.

5.0 Chapter Summary and Conclusions

Dual class ownership structure is one of the most effective anti-takeover defense mechanisms. It can lead to entrenchment since controlling shareholders can maintain a voting block of shares and still raise additional equity capital. Entrenchment can be viewed as a benefit to controlling shareholders that imposes agency costs to outside shareholders. Therefore, investors are likely to attach lower value to dual class firms with a greater degree of entrenchment. In this essay, I investigate whether dual class firms have a greater degree of managerial entrenchment compared to single class firms and whether investors discount the value of dual class companies that have signs of entrenched managers. The evidence provided in the research shows that dual class CEOs and directors are entrenched compared to single class CEOs. After adjusting for industry median, dual class CEOs and directors have longer tenure than CEOs in single class firms even when the firm is making losses.

Univariate tests indicate that dual class CEOs and directors have a longer tenure than their counterparts in single class firms with concentrated control. Dual class CEOs on average, remain on the job 5.32 years longer than CEOs in similar single class firms. This evidence can be interpreted as managerial entrenchment. However, longer tenure may also indicate experience and superior performance in running the firm. Therefore, I construct tests conditional on poor past firm performance using the industry and a matching sample as benchmarks. Longer tenure of CEOs and directors in dual class firms when these firms perform poorly in the past is consistent with managerial entrenchment. The univariate test shows that in dual class firms with poor past performance, CEOs have a longer tenure (2.71 years) compared to CEOs in similar single class firms.

In a panel regression specification, I use several measures of entrenchment and two different measures of dual class discount and provide evidence that the greater the entrenchment, the larger the dual class discount. Excess CEO tenure (compared to matching firms and industry median) leads to a greater discount of dual class firms. Also, investors apply a greater discount to dual class firms with excess E-index and longer directors' tenure. Although CEO tenure is an indication of managerial entrenchment, it can also signify experience and superior ability in running firms. Therefore, I provide evidence conditional on poor past performance. When firms perform poorly, managers who are not entrenched are more likely to lose their job. Therefore entrenchment measures should be conditional on poor past performance. I provide evidence that investors apply a greater discount to dual class firms with excess CEO tenure and excess directors' tenure for dual class firms with poor past performance.

I provide further evidence by examining sub-samples of dual class firms with controlling shareholders as CEOs and those where the controlling shareholder is a director or Chairman of the board. Longer tenure of controlling shareholders-CEOs provides robust evidence of the relationship between managerial entrenchment and dual class discount. Longer tenure in dual class firms with controlling shareholders-CEOs results in a greater discount of these firms especially when prior performance is less than a matching firm or the industry average. The evidence suggests that investors are concerned with managerial entrenchment, potential agency costs and extraction of private benefits and therefore, attach lower value to dual class companies which have a higher degree of entrenchment.

6.0 References

Bates, T. W., Becher, D. A., and Lemmon, M. L., (2008), Board classification and managerial entrenchment: Evidence from the market for corporate control, *Journal of Financial Economics*, 87, 656-677

Bebchuk, L., and Cohen, A., (2005), The costs of entrenched boards, *Journal of Financial Economics*, 78, 409-433

Bebchuk, L., and Stole, L., (1993), Do short-term managerial objectives lead to under-or-over-investments in long-term projects? *Journal of Finance*, 48, 719-729

Bebchuk, L., Cohen, A., and Ferrell, A., (2009), What matters in corporate governance? *Review of Financial Studies*, 22, 783-827

Berger, P., Ofek, F and Yermack, D. L., (1997), Managerial entrenchment and capital structure decisions, *Journal of Finance*, 52, 1411-1438

Coughlan, A., and Schmidt, R., (1985), Executive compensation, management turnover, and firm performance: An empirical investigation, *Journal of Accounting and Economics*, 7, 43-66.

Denis D. J., Denis D. K., (1995), Performance changes following top management dismissals, *Journal of Finance*, 50, 1029-1057

Denis D. J., Denis D. K., and Sarin, A., (1997), Ownership structure and top executive turnover, *Journal of Financial Economics*, 45, 193-221.

Faleye, O., (2007), Classified boards, firm value and managerial entrenchment, *Journal of Financial Economics*, 83, 501-529

Florackis, C and Ozkan A., (2009), The impact of managerial entrenchment on agency costs: An empirical investigation using U.K. Panel Data, *European Financial Management*, 15, 497-528

Gompers, P., Ishii, J., Metrick, A., (2003), Corporate governance and equity prices, *Quarterly Journal of Economics*, 118, 107-155

Gompers, P. A., Ishii, J. and Metrick, A., (2010), Extreme governance: An analysis of dual-class firms in the United States, *Forthcoming Review of Financial Studies,* 23, 1051-1088

Goyal, V. K., and Park, C. W., (2002), Board leadership structure and CEO turnover, *Journal of Corporate Finance*, 8, 49–66

Harford, J., Mansi, S. A., and Maxwell, W. F., (2008), Corporate governance and firm cash holdings in the U.S., *Journal of Financial Economics*, 87, 535-555

Heckman, J., (1979), Sample selection bias as a specification error, *Econometrica*, 47, 153-161

Heckman, J., and Robb R., (1986), Alternative methods for solving the problem of selection bias in evaluating the impact of treatments on outcomes, Drawing Inference from Self-Selected Samples, ed. H. Wainer. Berlin: Springer-Verlag

Heckman, J., Ichimura, H., and Todd P., (1997), Matching as an econometric evaluation estimator: Evidence from evaluating a job training programme, *Review of Economic Studies*, 64, 605-654

Heckman, J., Ichimura, H., Smith, J., and Todd P., (1998), Characterizing selection bias using experimental data, *Econometrica*, 66, 1017-1098

Hillion, P., Vermaelen, T., (2004), Death spiral convertibles, *Journal of Financial Economics*, 71, 381-415

Huson, M. R., Parrino, R., Starks, L. T., (2001), Internal monitoring mechanisms and CEO turnover: A long-term perspective, *Journal of Finance*, 56, 2265-2297

Jarrell, G. and Poulsen, A., (1988), Dual-class recapitalization as antitakeover mechanisms: The recent evidence, *Journal of Financial Economics*, 20, 129-152

Khan, T., (2006), Corporate dividends and ownership structure: Evidence from UK panel data, *The Economic Journal*, 116, 172-189

King, M., and Santor, E., (2008), Family values: Ownership structure, performance and capital structure of Canadian firms, *Journal of Banking and Finance*, 32, 2423-2432

Masulis, R.W., Wang, C., and Xie, F., (2009), Agency problems at dual-class companies, *Journal of Finance*, 64, 1697-1727

Morck, R., Shleifer, A., Vishny, R., (1988), Management ownership and market valuation: An empirical analysis, *Journal of Financial Economics,* 20, 293–315

Norburn, D., and Birley, S., (1988) The top management team and corporate performance, *Strategic Management Journal*, 9, 225–237

Ozkan, A., and Ozkan, N., (2004), Corporate cash holdings: An empirical investigation of UK companies, *Journal of Banking and Finance*, 28, 2103-2134

Rosenbaum, P., and Rubin D., (1983), The Central role of the propensity score in observational studies for causal effects, *Biometrika*, 70, 41–55.

Ruback, R. S., (1988), Coercive dual-class exchange offers, *Journal of Financial Economics*, 20, 153-173

Salas, J. M., (2010), Entrenchment, governance and stock price reaction to sudden executive deaths, *Journal of Banking and Finance*, 34, 656-666

Shleifer, A., and Vishny R. W., (1989), Management entrenchment: The case of manager-specific investments, *Journal of Financial Economics*, 25, 123-139

Smith, B. F., Amoako-Adu, B., and Kalimipalli M., (2009), Concentrated control and corporate value: A comparative analysis of single and dual class structures in Canada, *Applied Financial Economics*, 19, 955-974

Stein, J., (1988), Takeover threats and managerial myopia, *Journal of Political Economy*, 96, 61-80

Stulz, R., (1988), Managerial control of voting rights: Financing policies and the market for corporate control, *Journal of Financial Economics*, 20, 25-54

Villalonga, B., (2004), Does diversification cause the "diversification discount"? *Financial Management*, 33, 5-27

Warner, J. B., Watts, R. L., and Wruck, K. H., (1988), Stock prices and top management changes, *Journal of Financial Economics,* 20,461-492

Weisbach, M. S., (1988), Outside directors and CEO turnover, *Journal of Financial Economics*, 20, 431-460

Wilcox, J. C., (2002), Two cheers for staggered boards, *Corporate Governance Advisor*, 10, 1-5

Yermack, D., (2006), Flights of fancy: Corporate jets, CEO perquisites, and inferior shareholder returns, *Journal of Financial Economics*, 80, 211–242

Zingales, L., (1995), What determines the value of corporate votes? *The Quarterly Journal of Economics*, 110, 1047-1073

Table 1: Descriptive statistics

Directors' age is the average age of a company's director. Directors' tenure is the median number a company's directors serve in this role. IACEO Tenure and IADirectors' tenure are defined as the industry adjusted tenure for CEOs and Directors, respectively based on industry median. E-index is the sum of the 6 entrenching provisions identified by Bebchuk et al. (2009) and G-index is the sum of the 24 governance provisions used in Gompers et al (2003). Perdum2 is a dummy variable equal to 1 if the firm's 3-year ROA is less than the 3-year industry average ROA. Cash flow rights is defined as the percentage of equity owned by the largest shareholder or management and directors. Voting rights is the percentage of votes held by the largest shareholder or management and directors. Management voting leverage (Mgmt. Vote) is the percentage of total votes controlled by management and directors divided by the percentage of total equity held by management and directors, size (natural logarithm of sales), financial leverage (total debt divided by total assets), performance (ROA=EBIT divided by total assets and RET is measured as the annual stock returns), risk (beta is estimated using the CRSP equally weighted index and the previous five year monthly stock returns), growth is the geometric mean growth in total assets over the previous five year period, institutional ownership (percentage of shares held by institutional investors) and family director is the percentage of family members on the board of directors. Significance levels at the 1%, 5% and 10% are indicated as *, **, and ***, respectively. The test for difference in mean is the t-test and the test for difference in median is the Wilcoxon signed-rank test.

Panel A: Entrenchment Characteristics

	Dual Class			Single Class			Mean test	Median test
	Mean	**Median**	**Std Dev.**	**Mean**	**Median**	**Std Dev.**	**T-stat**	**Z-stat**
CEO Age (years)	55.88	56.00	7.41	55.38	56.00	6.91	1.37	1.19
Directors' Age (years)	59.33	59.65	4.68	59.43	59.80	3.79	-0.43	-0.31
CEO Tenure (years)	14.12	10.00	12.13	8.80	6.00	8.55	9.98***	9.13***
Directors' Tenure	8.58	8.00	5.00	7.62	7.00	4.14	4.14***	3.88***
IACEO Tenure	8.28	4.25	12.30	3.08	0.50	8.56	9.68***	8.87***
IADirectors' Tenure	1.74	1.00	4.25	1.09	0.00	3.93	3.13***	3.65***
E-index	1.80	2.00	1.42	2.66	3.00	1.28	-12.57***	-11.99***
G-index	6.09	6.00	1.75	6.80	7.00	1.88	-7.69***	-7.09***
Perdum2*IACEO Tenure	10.45	8.50	12.76	1.82	1.00	8.68	4.64***	7.55***
Perdum2*IADirector Tenure	1.74	1.50	4.15	1.07	0.50	4.75	2.94***	2.32**

Note: Only non-zero observations are used to calculate the summary statistics for the interaction terms Perdum2*IACEO Tenure and Perdum2*IADirector Tenure. For the Perdum2*IACEO Tenure, there are 230 observations for the dual class sample and 157 for the single class sample. For the Perdum2*IADirector Tenure, there are 200 observations for the dual class sample and 142 for the single class sample. The median test for the interaction terms is the Wilcoxon rank sum test.

Table 1 Cont'd

Panel B: Ownership Characteristics

	Dual Class			Single Class			Mean test	Median test
	Mean	Median	Std Dev.	Mean	Median	Std Dev	T-stat	Z-stat
Cash Flow Rights of the Largest Shareholder %	22 50	18 20	16 50	23 60	19 20	13 20	-0 71	-0 62
Voting Rights of the Largest Shareholder %	57 80	54 80	25 70	23 60	19 20	13 20	34 33***	15 75***
Cash Flow Rights of Management & Directors %	24 90	19 30	15 60	17 10	16 50	14 10	14 21***	4 47***
Voting Rights of Management & Directors %	58 30	57 30	25 20	17 10	16 50	14 10	44 25***	15 82***
Management Voting Leverage (Mgmt Vote)	3 01	2 42	2 15	1 00	1 00	0 00	58 60****	82 55***

Panel C: Firm Characteristics

Tobin's Q ratio	1 87	1 47	1 24	2 04	1 62	1 25	-3 02***	-4 53***
Industry Adjusted Q	-0 59	-0 41	1 73	-0 39	-0 35	2 26	-2 00**	-1 98**
Size (Sales - $ million)	4917 45	1523 90	14597 23	4653 87	1629 00	15302 38	0 78	-0 89
Financial Leverage (D/A)	21 61	20 34	18 10	21 81	20 82	18 96	-0 58	-0 28
Performance – (Ret) %	12 61	8 35	34 87	10 80	7 45	38 52	2 18**	1 58
Performance – (ROA)%	9 75	8 87	8 81	9 57	9 06	9 30	0 86	-0 04
Risk – (Beta)	0 99	0 77	0 81	1 06	0 85	0 81	-1 46	-1 63
Growth % - (Total Asset)	9 98	6 67	15 61	9 37	6 46	16 64	1 07	1 08
Institutional Ownership %	16 92	13 60	15 66	21 49	18 71	14 96	-13 24***	-15 65***
Family Directors %	15 80	12 50	12 73	5 62	0 00	10 60	34 83***	37 86***

Note The number of observations for each of the dual and single class samples is 792 firm-year
Industry Adjusted Q-Mean is defined as the difference between the firm's Q ratio and the average SIC Industry Q ratio

Table 2: Effects of entrenchment on discount of dual class Q ratio to that of matching single class firms

The dependent variable is computed as the difference between the Q ratio of dual class firms and the Q ratio of matching single class concentrated control firms. *Excess CEO tenure* is the difference in tenure for dual class CEOs and their matching counterparts in single class firms. *IACEO tenure* is the difference between tenure of dual class CEOs and the average industry CEO tenure. Excess E-index is the difference between the E-index value of dual class firms and matching single class firms. In constructing the excess G-index, I subtract the E-index value for each firm from the G-index value and then take the difference between dual class firms' G-index and matching single class firms' G-index. IADirectors' tenure is computed as the median tenure per director less the median industry tenure per director. The numbers below the estimated coefficients are t-statistics, with ***,**,* being significant at the 1%, 5% and 10% levels.

	(1)	(2)	(3)	(4)	(5)
Excess CEO Tenure	-0.011				
	-1.82*				
IACEO Tenure		-0.013			-0.012
		-2.93***			-2.34**
Excess E-index			-0.055		-0.063
			-1.71*		-1.95*
Excess G-index			0.05		0.05
			1.60		1.53
IADirectors' Tenure				-0.032	-0.019
				-2.24**	-2.04**
Excess Compensation	-0.229	-0.224	-0.23	-0.236	-0.229
	-3.38***	-3.31***	-3.41***	-3.50***	-3.38***
Mgmt. Vote x Excess Cash	-0.293	-0.242	-0.261	-0.241	-0.252
	-1.19	-1.97**	-1.05	-1.96**	-2.02**
Mgmt. Vote	-0.109	-0.102	-0.113	-0.110	-0.108
	-3.50***	-3.34***	-3.68***	-3.62***	-3.61***
Excess Cash	0.829	0.736	0.771	0.741	0.716
	1.03	0.90	0.96	0.90	0.89
Financial Leverage	-0.571	-0.872	-0.938	-0.875	-0.902
	-1.53	-3.13***	-3.37***	-3.15***	-3.24***
Conversion Rights	-0.265	-0.204	-0.255	-0.183	-0.215
	-1.72*	-1.34	-1.64	-1.23	-1.43
Size	0.143	0.123	0.133	0.123	0.107
	2.95***	2.60***	2.72***	2.54**	2.12**
Dividend Difference	-0.333	-0.334	-0.233	-0.296	-0.289
	-1.32	-1.32	-0.93	-1.17	-1.15
CEO Chairman Duality	0.143	0.148	0.124	0.105	0.132
	1.11	1.17	0.99	0.84	1.05
Intercept	-0.689	-0.643	-0.757	-0.577	-0.447
	-1.53	-1.53	-1.75*	-1.32	-0.96
Industry and Year effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.242	0.237	0.267	0.256	0.289
Obs.	792	792	792	792	792

Table 3: Effects of entrenchment on discount of dual class Q ratio versus the industry average

The dependent variable is computed as the difference between the Q ratio of dual class firms and industry average Q ratio. *Excess CEO tenure* is the difference in tenure for dual class CEOs and their matching counterparts in single class firms. *IACEO tenure* is the difference between tenure of dual class CEOs and the average industry CEO tenure. Excess E-index is the difference between the E-index value of dual class firms and matching single class firms. In constructing the excess G-index, I subtract the E-index value for each firm from the G-index value and then take the difference between dual class firms' G-index and matching single class firms' G-index. IADirectors' tenure is computed as the median tenure per director less the median industry tenure per director. The numbers below the estimated coefficients are t-statistics, with ***,**,* being significant at the 1%, 5% and 10% levels.

	(1)	(2)	(3)	(4)	(5)
Excess CEO Tenure	-0.022				
	-1.98**				
IACEO Tenure		-0.009			-0.012
		-2.03**			-2.27**
Excess E-index			-0.028		-0.035
			-1.88**		-1.98**
Excess G-index			0.024		0.025
			1.13		1.16
IADirectors' Tenure				-0.001	-0.013
				-2.07**	-1.96**
Excess Compensation	-0.425	-0.417	-0.424	-0.425	-0.413
	-6.53***	-6.44***	-6.50***	-6.52***	-6.29***
Mgmt. Vote x Excess Cash	-0.249	-0.246	-0.254	-0.248	-0.258
	-1.83*	-2.05**	-2.25**	-1.87*	-1.89*
Mgmt. Vote	-0.028	-0.024	-0.029	-0.027	-0.025
	-1.99**	-1.78*	-2.94***	-2.89***	-2.83***
Excess Cash	0.787	0.768	0.786	0.786	0.777
	1.21	1.20	1.20	1.21	1.21
Financial Leverage	-0.629	-0.609	-0.648	-0.628	-0.633
	-2.57**	-2.49**	-2.66***	-2.57**	-2.60***
Conversion Rights	-0.146	-0.134	-0.16	-0.143	-0.165
	-1.27	-1.16	-1.38	-1.24	-1.41
Size	0.22	0.207	0.215	0.218	0.207
	4.48***	4.11***	4.46***	4.35***	4.14***
Dividend Difference	0.41	0.363	0.425	0.403	0.385
	2.25**	2.03**	2.33**	2.22**	2.12**
CEO-Chairman Duality	0.044	0.063	0.046	0.046	0.075
	0.41	0.59	0.43	0.44	0.69
Intercept	-1.545	-1.382	-1.492	-1.519	-1.412
	-4.29***	-3.75***	-4.22***	-3.98***	-3.72***
Industry and Year effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.144	0.147	0.146	0.144	0.178
Obs.	792	792	792	792	792

Table 4: Effects of entrenchment on discount of dual class Q ratio to that of matching single class firms' conditional on past performance

The dependent variable is computed as the difference between the Q ratio of dual class firms and the Q ratio of matching single class concentrated control firms. *Excess CEO tenure* is computed as the difference in tenure for dual class CEOs and their matching counterparts in single class firms. *IACEO tenure* is computed as the difference between tenure of dual class CEOs and the average industry CEO tenure. Excess E-index is the difference between the E-index value of dual class firms and matching single class firms. In constructing the excess G-index, I subtract the E-index value for each firm from the G-index value and then take the difference between dual class firms' G-index and matching single class firms' G-index. IADirectors' tenure is computed as the median tenure per director less the median industry tenure per director. Perdum1 is a dummy variable equal to 1 if dual firms' previous 3-year average ROA is less than the ROA of matching single class firms. (Perdum2 is a dummy variable equal to 1 if the firm's 3-year ROA is less than the 3-year industry average ROA. The numbers below the estimated coefficients are t-statistics, with ***,**,* being significant at the 1%, 5% and 10% levels.

	(1)	(2)	(3)	(4)	(5)
Perdum1 x Excess CEO Tenure	-0.035				
	-3.61***				
Excess CEO Tenure	0.008				
	1.51				
Perdum1	-0.08				
	-0.58				
Perdum2 x IACEO Tenure		-0.019			
		-2.02**			
IACEO Tenure		-0.009			
		-1.79*			
Perdum2		0.003			
		0.02			
Perdum2 x Excess CEO Tenure			-0.016		
			-1.79*		
Excess CEO Tenure			-0.001		
			-0.21		
Perdum2			-0.135		
			-1.01		
Perdum1x Excess E-index				0.004	
				0.08	
Excess E-index				-0.063	
				-1.53	
Excess G-index				0.051	
				1.92*	
Perdum1				-0.107	
				-0.87	
Perdum1*IADirectors' Tenure					-0.084
					-4.05***
IADirectors' Tenure					0.005
					0.32
Perdum1					-0.001
					-0.01

Table 4: Cont'd

	(1)	(2)	(3)	(4)	(5)
Excess Compensation	-0.211	-0.236	-0.233	-0.233	-0.221
	-3.10***	-3.44***	-3.43***	-3.41***	-3.28***
Mgmt. Vote x Excess Cash	-0.288	-0.295	-0.304	-0.264	-0.268
	-1.79*	-1.89*	-1.93*	-1.99**	-1.87*
Mgmt. Vote	-0.11	-0.109	-0.113	-0.119	-0.111
	-3.46***	-3.44***	-3.47***	-3.75***	-3.61***
Excess Cash	0.787	0.795	0.842	0.770	0.802
	0.99	0.98	1.05	0.95	0.98
Financial Leverage	-0.043	-0.053	-0.045	-0.091	-0.079
	-1.16	-1.44	-1.21	-3.24***	-2.87***
Conversion Rights	-0.278	-0.268	-0.284	-0.269	-0.206
	-1.81*	-1.75*	-1.84*	-1.73*	-1.39
Size	0.152	0.13	0.144	0.134	0.123
	3.17***	2.68***	2.95***	2.79***	2.55**
Dividend Difference	-0.315	-0.339	-0.313	-0.227	-0.273
	-1.27	-1.35	-1.24	-0.91	-1.10
CEO Chairman Duality	0.162	0.14	0.142	0.13	0.089
	1.26	1.09	1.10	1.04	0.71
Intercept	-0.773	-0.576	-0.682	-0.733	-0.533
	-1.73*	-1.28	-1.50	-1.71*	-1.20
Industry and Year effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.211	0.236	0.229	0.276	0.290
Obs.	792	792	792	792	792

Table 5: Effects of entrenchment on discount dual class Q ratio versus the industry conditional on past performance

The dependent variable is computed as the difference between the Q ratio of dual class firms and industry average Q ratio. *Excess CEO tenure* is the difference in tenure for dual class CEOs and their matching counterparts in single class firms. *IACEO tenure* is the difference between tenure of dual class CEOs and the average industry CEO tenure. Excess E-index is the difference between the E-index value of dual class firms and matching single class firms. In constructing the excess G-index, I subtract the E-index value for each firm from the G-index value and then take the difference between dual class firms' G-index and matching single class firms' G-index. IADirectors' tenure is computed as the median tenure per director less the median industry tenure per director. Perdum1 is a dummy variable equal to 1 if dual firms' previous 3-year average ROA is less than the ROA of matching single class firms. Perdum2 is a dummy variable equal to 1 if the firm's 3-year ROA is less than the 3-year industry average ROA. The numbers below the estimated coefficients are t-statistics, with ***, **, * being significant at the 1%, 5% and 10% levels.

	(1)	(2)	(3)	(4)	(5)
Perdum1 x Excess CEO Tenure	-0.033				
	-3.57***				
Excess CEO Tenure	0.018				
	2.47**				
Perdum1	0.089				
	0.63				
Perdum2 x IACEO Tenure		-0.006			
		-0.73			
IACEO Tenure		0.001			
		-0.01			
Perdum2		0.074			
		0.51			
Perdum2 x Excess CEO Tenure			-0.024		
			-2.90***		
Excess CEO Tenure			0.012		
			1.95*		
Perdum2			0.052		
			0.37		
Perdum1 x Excess E-index				-0.147	
				-3.06***	
Excess E-index				-0.102	
				-2.89***	
Excess G-index				0.022	
				0.99	
Perdum1				0.117	
				0.85	
Perdum1 x IADirectors' Tenure					-0.093
					-5.31***
IADirectors' Tenure					0.039
					2.66***
Perdum1					0.117
					0.88

Table 5 Cont'd

	(1)	(2)	(3)	(4)	(5)
Excess Compensation	-0 139	-0 150	-0 149	-0 135	-0 140
	-2 07**	-2 18**	-2 18**	-1 97**	-6 38***
Mgmt Vote x Excess Cash	-0 321	-0 325	-0 349	-0 319	-0 278
	-1 94*	-1 96**	-1 97**	-1 30	-1 78*
Mgmt Vote	-0 033	-0 037	-0 037	-0 038	-0 022
	-1 69*	-1 99**	-2 03**	-1 97**	-0 71
Excess Cash	0 973	1 006	1 052	0 958	0 859
	1 21	1 25	1 31	1 17	1 35
Financial Leverage	-0 034	-0 04	-0 037	-0 059	-0 056
	-0 86	-1 02	-0 95	-2 36**	-2 33**
Conversion Rights	-0 208	-0 206	-0 221	-0 183	-0 155
	-1 70*	-1 64	-1 78*	-1 50	-1 34
Size	0 218	0 205	0 206	0 206	0 218
	4 11***	3 78***	3 95***	4 11***	4 41***
Dividend Difference	0 578	0 571	0 59	0 529	0 422
	3 08***	3 05***	3 15***	2 77***	2 34**
CEO Chairman Duality	0 048	0 035	0 03	0 059	0 023
	0 43	0 31	0 27	0 55	0 22
Intercept	-1 492	-1 353	-1 366	-1 452	-1 502
	-3 72***	-3 34***	-3 45***	-4 04***	-3 96***
Industry and Year effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0 107	0 091	0 100	0 109	0 168
Obs	792	792	792	792	792

Table 6: Entrenchment effect on dual class discount for a sub-sample of firms with controlling shareholders-executives

The dependent variable is computed as the difference between the Q ratio of dual class firms and the Q ratio of matching single class concentrated control firms. *Excess CEO tenure* is the difference in tenure for dual class CEOs and their matching counterparts in single class firms. *IACEO tenure* is the difference between tenure of dual class CEOs and the average industry CEO tenure. Excess E-index is the difference between the E-index value of dual class firms and matching single class firms. In constructing the excess G-index, I subtract the E-index value for each firm from the G-index value and then take the difference between dual class firms' G-index and matching single class firms' G-index. IADirectors' tenure is computed as the median tenure per director less the median industry tenure per director. Perdum1 is a dummy variable equal to 1 if dual firms' previous 3-year average ROA is less than the ROA of matching single class firms. (Perdum2 is a dummy variable equal to 1 if the firm's 3-year ROA is less than the 3-year industry average ROA. The numbers below the estimated coefficients are t-statistics, with ***,**,* being significant at the 1%, 5% and 10% levels.

	(1)	(2)	(3)	(4)	(5)
Perdum1x Excess CEO Tenure	-0.033				
	-3.03***				
Excess CEO Tenure	0.011				
	1.46				
Perdum1	0.123				
	0.55				
Perdum2 x IACEO Tenure		-0.015			
		-2.13**			
IACEO Tenure		-0.010			
		-0.59			
Perdum2		0.159			
		0.55			
Perdum2 x Excess CEO Tenure			-0.021		
			-2.28**		
Excess CEO Tenure			0.006		
			0.68		
Perdum2			0.058		
			0.27		
Perdum1x Excess E-index				0.025	
				0.35	
Excess E-index				-0.10	
				-1.73*	
Excess G-index				0.045	
				0.92	
Perdum1				-0.029	
				-0.15	
Perdum1 x IADirectors' Tenure					-0.103
					-3.88***
IADirectors' Tenure					0.002
					0.09
Perdum1					0.201
					0.91

Table 6 Cont'd

	(1)	(2)	(3)	(4)	(5)
Excess Compensation	-0.238	-0.133	-0.264	-0.245	-0.137
	-2.58**	-1.31	-2.86***	-2.54**	-1.42
Mgmt. Vote x Excess Cash	0.089	0.043	0.069	-0.006	-0.024
	0.27	0.13	0.21	-0.02	-0.07
Mgmt. Vote	-0.049	-0.049	-0.062	-0.065	-0.073
	-1.99**	-1.88*	-1.40	-2.38**	-2.63***
Excess Cash	-0.456	-0.307	-0.401	-0.196	-0.076
	-0.45	-0.32	-0.4	-0.19	-0.08
Financial Leverage	-0.035	-0.063	-0.03	-0.048	-0.051
	-0.71	-1.23	-0.61	-0.96	-1.12
Conversion Rights	-0.161	-0.161	-0.172	-0.267	-0.152
	-0.71	-0.73	-0.75	-1.05	-0.67
Size	0.293	0.250	0.281	0.289	0.281
	4.72***	3.96***	4.62***	4.58***	4.48***
Dividend Difference	-0.901	-0.865	-0.851	-0.732	-0.876
	-1.98**	-1.94*	-1.86*	-1.74*	-2.02**
CEO Chairman Duality	-0.070	-0.119	-0.105	-0.086	-0.168
	-0.402	-0.69	-0.61	-0.51	-0.99
Intercept	-1.94	-1.477	-1.804	-1.889	-1.566
	-3.35***	-2.54**	-3.07***	-3.18***	-2.61***
Industry and Year effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.102	0.106	0.120	0.103	0.113
Obs.	486	486	486	486	486

Table 7: Entrenchment effect on dual class discount for a sub-sample of firms with non-controlling shareholders-executives

The dependent variable is computed as the difference between the Q ratio of dual class firms and the Q ratio of matching single class concentrated control firms. *Excess CEO tenure* is the difference in tenure for dual class CEOs and their matching counterparts in single class firms *IACEO tenure* is the difference between tenure of dual class CEOs and the average industry CEO tenure Excess E-index is the difference between the E-index value of dual class firms and matching single class firms In constructing the excess G-index, I subtract the E-index value for each firm from the G-index value and then take the difference between dual class firms' G-index and matching single class firms' G-index. IADirectors' tenure is computed as the median tenure per director less the median industry tenure per director. Perdum1 is a dummy variable equal to 1 if dual firms' previous 3-year average ROA is less than the ROA of matching single class firms. (Perdum2 is a dummy variable equal to 1 if the firm's 3-year ROA is less than the 3-year industry average ROA. The numbers below the estimated coefficients are t-statistics, with ***,**,* being significant at the 1%, 5% and 10% levels.

	(1)	(2)	(3)	(4)	(5)
Perdum1 x Excess CEO Tenure	-0 024				
	-1 51				
Excess CEO Tenure	0 002				
	0 02				
Perdum1	-0 014				
	-0 06				
Perdum2 x IACEO Tenure		-0 055			
		-3 57***			
IACEO Tenure		0 005			
		0 52			
Perdum2		0 161			
		0 79			
Perdum2 x Excess CEO Tenure			0 021		
			1 33		
Excess CEO Tenure			-0 022		
			-2 10**		
Perdum2			-0 148		
			-0 69		
Perdum1x Excess E-index				-0 046	
				-0 55	
Excess E-index				0 021	
				0 36	
Excess G-index				0 009	
				0 26	
Perdum1				-0 046	
				-0 22	
Perdum1x IADirectors' Tenure					-0 059
					-2 08**
IADirectors' Tenure					-0 038
					-1 28
Perdum1					-0 006
					-0 03

Table 7 Cont'd

	(1)	(2)	(3)	(4)	(5)
Excess Compensation	-0.275	-0.368	-0.295	-0.285	-0.360
	-2.88***	-3.45***	-3.02***	-2.92***	-3.37***
Mgmt. Vote x Excess Cash	-0.684	-0.695	-0.641	-0.695	-0.641
	-2.41**	-2.62***	-2.54**	-2.48**	-2.47**
Mgmt. Vote	-0.078	-0.078	-0.156	-0.088	-0.087
	-3.08***	-3.46***	-3.58***	-3.54***	-3.83***
Excess Cash	2.467	2.344	2.326	2.435	2.194
	2.64***	2.56**	2.63***	2.59***	2.50**
Financial Leverage	-0.042	-0.034	-0.019	-0.013	-0.048
	-0.66	-0.58	-0.30	-0.20	-0.69
Conversion Rights	0.167	0.166	0.165	0.169	0.234
	0.82	0.83	0.81	0.82	1.16
Size	0.158	0.137	0.160	0.152	0.128
	2.31**	1.98**	2.30**	2.19**	1.97**
Dividend Difference	0.215	0.223	0.093	0.258	0.422
	0.75	0.71	0.34	0.89	1.44
CEO Chairman Duality	0.514	0.569	0.483	0.515	0.439
	3.16***	3.45***	3.01***	3.14***	2.64***
Intercept	-0.6252	-0.458	-0.407	-0.565	-0.233
	-1.04	-0.75	-0.64	-0.91	-0.40
Industry and Year effects	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.203	0.224	0.205	0.194	0.224
Obs.	306	306	306	306	306

Table 8: Effects of predicted entrenchment on dual class discount conditional on past performance

The dependent variable in models (1)-(3) is computed as the difference between the Q ratio of dual class firms and the Q ratio of matching single class concentrated control firms and the dependent variable in models (4)-(6) is the difference between the Q ratio of dual class firms and industry average Q ratio. *Predicted Excess CEO Tenure* is the difference in predicted tenure for dual class CEOs and their matching counterparts in single class firms. *Predicted* IACEO *tenure* is predicted industry adjusted tenure of dual class CEOs. Predicted IADirectors' tenure is the predicted median industry adjusted tenure per director. Perdum is a dummy variable equal to 1 if dual firms' previous 3-year average ROA is less than the ROA of matching single class firms. The numbers below the estimated coefficients are t-statistics, with ***, **, * being significant at the 1%, 5% and 10% levels.

	(1)	(2)	(3)	(4)	(5)	(6)
Perdum x Predicted Excess CEO Tenure	-0.136			-0.100		
	-5.70***			-5.32***		
Predicted Excess CEO Tenure	0.094			0.059		
	2.98***			2.23**		
Perdum	0.015			0.123		
	0.12			0.93		
Perdum x Predicted IACEO Tenure		-0.105			-0.073	
		-6.13***			-5.80***	
Predicted IACEO Tenure		0.044			0.088	
		1.15			2.61***	
Perdum		0.065			0.12	
		0.49			0.92	
Perdum x Predicted IADirectors' Tenure			-0.497			-0.381
			-5.97***			-6.23***
Predicted IADirectors' Tenure			-0.524			0.960
			-1.16			2.57**
Perdum			0.057			0.149
			0.41			1.13
Excess Compensation	-0.186	-0.183	-0.198	-0.384	-0.382	-0.376
	-2.70***	-2.64***	-2.82***	-5.95***	-5.89***	-5.82***
Mgmt. Vote x Excess Cash	-0.275	-0.261	-0.223	-0.266	-0.268	-0.303
	-1.98**	-1.81*	-1.99**	-2.35**	-2.37**	-1.97**
Mgmt. Vote	-0.133	-0.117	-0.170	-0.035	-0.054	0.014
	-3.96***	-3.46***	-3.79***	-1.01	-1.55	0.37
Excess Cash	0.641	0.623	0.53	0.72	0.703	0.826
	0.83	0.80	0.66	1.14	1.12	1.29
Financial Leverage	-0.039	-0.029	-0.025	-0.026	-0.027	-0.026
	-1.10	-0.82	-0.72	-0.72	-0.75	-0.75
Conversion Rights	-0.323	-0.323	-0.296	-0.194	-0.220	-0.226
	-2.09**	-2.14**	-2.02**	-1.66*	-1.89*	-1.91*

Table 8 Cont'd

	(1)	(2)	(3)	(4)	(5)	(6)
Size	0.155	0.148	0.144	0.228	0.217	0.225
	3.23***	3.01***	2.98***	4.58***	4.41***	4.58***
Dividend Difference	-0.419	-0.43	-0.44	0.304	0.306	0.343
	-1.71*	-1.76*	-1.83*	1.69*	1.72*	1.87*
CEO Chairman Duality	0.165	0.154	0.148	0.062	0.06	0.057
	1.30	1.21	1.17	0.59	0.57	0.55
Intercept	-0.95	-0.744	0.733	-1.613	-1.849	-3.022
	-2.12**	-1.60	0.68	-4.04***	-4.12***	-3.60***
Industry and Year effects	Yes	Yes	Yes	Yes	Yes	Yes
Adjusted R^2	0.112	0.124	0.128	0.163	0.169	0.173
Obs.	792	792	792	792	792	792

Chapter 5

Contributions and Conclusions

This dissertation makes several contributions to the finance and corporate governance literature. The first essay adds to several streams of literature. First, it contributes to the ownership and executive compensation literature by presenting evidence in support of the extraction of private benefits of control hypothesis. Second, the research contributes to the study of family companies by presenting evidence that all family executives, not family CEOs alone, receive higher compensation. Finally, this research helps to explain why dual class companies sell at a discount compared to single class companies.

In the first essay, I investigate the salient agency problems associated with concentrated control and the extraction of private benefits. I propose three channels- excess compensation, excess cash holdings and excess capital expenditure- through which private benefits can be extracted and relate these channels to the documented dual class discount. I provide evidence of two channels through which controlling shareholders can extract private benefits at the expense of minority shareholders. I show that excess compensation and excess cash holdings result in a larger discount of dual class firms relative to a matching group of single class companies with concentrated control. This excess compensation is greatest when executives are family members of the controlling shareholder. The evidence is consistent with family members extracting perquisite consumption at the expense of minority shareholders.

The second essay examines the relationship between concentrated control and dividend policy. I proposed three explanations- extraction of private benefits, managerial reputation and family legacy- for dividend policy in firms with concentrated control. I provide evidence that, even in the U.S. with its stringent investor protection, controlling shareholders of dual class firms are extracting private benefits and hence, instituting a lower payout policy. Controlling shareholders of dual class firms, because they control the firm with votes rather than equity, receive only a small fraction of the corporate distribution. However, they can extract full benefits from assets retained within the firm. The results of the second essay complement the findings of the first essay. This essay adds to our understanding of dual class share structure and why investors value these firms lower than similar single class companies.

Private benefits and the agency costs of dual class share structure are not always tangible. Dual class ownership structure can allow managers to remain on the job even when the company is performing poorly relative to its peers. Therefore, managerial entrenchment is a form of private benefit flowing from dual class share structure. In essay 3, I contribute to the corporate governance and finance literature by investigating the relationship between the documented dual class discount and entrenchment. Dual class share structure is an effective anti-takeover defense mechanism that can render the market for corporate control ineffective. Hence, managers of dual class firms can become entrenched. Investors are likely to apply a greater discount to the value of dual class firms which appear to have a higher degree of managerial entrenchment. Using several proxies for entrenchment, I show that dual class firms with poor past performance and a greater degree of managerial entrenchment have a larger discount.

In summary, this research contributes to the corporate governance and finance literature by providing evidence that dual class share structure allows controlling shareholders and their family members to extract private benefits at the expense of outside shareholders, institute lower dividend policy which benefits themselves and allow managers to become entrenched. Investors are aware of the perquisite consumption flowing from control established by dual class share structure and hence, discount the value of dual class firms.